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PERSONAL.

Mr. C. B. Gifford has been appointed City Engineer of Berlin, N. H.

Mr. Joseph Meyerrose has been appointed Superintendent of Highways of Newtown, Borough of Queens, New York city.

Mr. Winfred H. Bennett, late City Engineer of Manchester, N. H., has accepted a position with Mr. Charles A. Bailey, stone contractor, Suncook, N. H.

Mr. F. C. Norcross, Superintendent, and Mr. Myron Mitchell, Chief Engineer of the Water-Works of Lorain, O., have resigned. Mr. C. L. Penny will succeed Mr. Norcross.

Mr. William H. Allison has been appointed a member of the Council Committee on the James River Improvement, of Richmond, Va., to succeed his brother, Mr. James W. Allison, deceased.

Mr. J. S. Braune, civil engineer, has resigned his position as Chief Draftsman of the Pottsville Iron & Steel Co., Pottsville, Pa., and has been appointed Chief Engineer of the Koken Iron Works, St. Louis, Mo.

Mr. Enrico de Grays, representative in Buenos Ayres, Argentine Republic, for the Westinghouse companies, the Wiard Plow Co., Leber & Meyer and other American firms, will sail for that city, April 20, from New York.

Mr. Arthur L. Mills, General Superintendent of the Toledo, St. Louis & Kansas City R. R., with headquarters at Toledo, O., has resigned, and will enter the grain business as a member of the firm of Paddock, Hodge & Co., of that city.

Prof. F. A. C. Perrine, M. Am. Inst. Elec. E., of the Department of Electricity of Stanford University, California, has accepted the position of Chief Consulting Expert to the Blue Lakes Water & Electric Power Co., Crocker Bldg., San Francisco, Cal., and will resign his professorship.

Mr. H. Uyeki, Government Engineer for the Osaka Harbor Works Commissioners, Japan, is expected to arrive in New York in a few days to inspect dredges, derricks, scows, hoisting engines, and other engineering appliances for modern harbor work, with a view to making purchases for the commission.

Mr. Lyman E. Cooley, lately Engineer Commissioner of the Chicago Main Drainage Channel, and of the Deep Waterways Commission, has been appointed Advisory Engineer to the Commission which is now investigating the expenditure of the $9,000,000 appropriation for the New York state canals.

Mr. Chas. A. Van Keuren, formerly Engineer of Construction of Jersey City, N. J., has been appointed Chief Engineer of the Street and Water Board of that city, to succeed Mr. L. D. Fowler, deceased. He was at one time Superintendent of Maintenance of Way of the West Shore R. R., and has been connected with the Engineering Department of Jersey City since 1884.

Mr. George N. Merrill, M. Am. Soc. C. E., Springfield, Mass.; Mr. Erwin O. Hathaway, civil engineer, formerly of Clinton, Mass., and Mr. Frank P. Cobb, City Engineer of Chicopee, Mass., have formed a partnership as civil and consulting engineers, with offices at 292 Main St., Springfield, Mass., under the firm name of George N. Merrill & Co. Mr. Merrill has had an extended experience in steam and electric railway work, sewerage and water-works construction, and general engineering. Mr. Cobb has been City Engineer of Chicopee for the past 14 years, and previous to that time was engaged in mill construction.

Mr. Chas. A. Boyd, Superintendent of the Walker Co., Cleveland, O., has resigned his position and will establish a general engineering business, with offices in the American Trust Bldg., Cleveland. He has been with the Walker Co. for the past four years, beginning as Engineer in the Railway Motor Department, in charge of design and construction. About a year later he was placed in charge of the entire Engineering Department, and was promoted to Assistant Superintendent, Jan. 1, 1897. In the following March he was made Superintendent of the Cleveland works, having charge of both the Engineering Department and the shops.

OBITUARY.

Mr. William Lynes, contractor, of St. Paul, Minn., died April 4, aged 42.

Mr. Lewis G. Stanhope, for 27 years Superintendent of the Chesapeake & Ohio Canal, died at his home, Hagerstown, Md., April 5, aged 79.

Mr. Howard R. Minturn, Division Superintendent of the Northern Division of the Chicago, Milwaukee & St. Paul Ry., with headquarters at Green Bay, Wis., died April 7. He was a native of Vermont.

Mr. Walter Dawson, for many years Master Mechanic of the Delaware, Lackawanna & Western R. R., died in New York, April 12, aged 75. He was the inventor of a number of devices in connection with locomotive boilers and fire-boxes.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

CHICAGO ELECTRICAL ASSOCIATION.
Apr. 15. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.

ENGINEERS' CLUB OF COLUMBUS.
Apr. 16. Secy., M. S. Hopkins, 14½ N. High St., Columbus, O.

THE ENGINEERS' CLUB OF PHILADELPHIA.
Apr. 16. The Deep Well Pumping Plant at Waukesha, Wis., J. W. Ledoux; "A New Indicator," Wilfred Lewis. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.

TECHNICAL CLUB OF OMAHA.
Apr. 18. Secy., J. Harry Lawrie, Omaha, Neb.

ENGINEERS' CLUB OF MINNEAPOLIS.
Apr. 18. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.

WESTERN RAILWAY CLUB.
Apr. 19. At Purdue University. Secy., F. M. Whyte, 225 Dearborn St., Chicago, Ill.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
Apr. 19. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.

ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
Apr. 19. Secy., Jas K. Zollinger, 16 Norton Bldg., Louisville, Ky.

BOSTON SOCIETY OF CIVIL ENGINEERS.
Apr. 20. Secy., S. E. Tinkham, City Hall, Boston, Mass.

WESTERN FOUNDRYMEN'S ASSOCIATION.
Apr. 20. Secy., A. Sorge, Jr., 1020 Monadnock Block, Chicago, Ill.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Apr. 20. Secy., Frank H. Olmsted, Los Angeles, Cal.

ENGINEERS' CLUB OF ST. LOUIS.
Apr. 20. Secy., Richard McCulloch, St. Louis, Mo.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Apr. 20. Secy., C. W. Hunt, 220 West 57th St., New York city.

WESTERN SOCIETY OF ENGINEERS.
Apr. 20. Discussion, "Electrical, Pneumatic and Mechanical Transmission in Manufacturing Establishments." Secy., N. L. Litten, Monadnock Block, Chicago, Ill.

BROOKLYN ENGINEERS' CLUB.
Apr. 21. "Explosives," Frederick McGalue. Secy., A. J. Provost, Jr., 191 Montague St., Brooklyn, N. Y.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Apr. 21. Secy., F. A. Charpiot, Macon, Ga.

ENGINEERS' CLUB OF CINCINNATI.
Apr. 21. Secy., J. F. Wilson, P.O. Box 333, Cincinnati, O.

NEW YORK RAILWAY CLUB.
Apr. 21. Secy., W. W. Wheatly, 168 Montague St., Brooklyn, N. Y.

INDIANAPOLIS ENGINEERING CLUB.
Apr. 23. Secy., Edson F. Folsom, Indianapolis, Ind.

FRANKLIN INSTITUTE.
Apr. 26. "The Multiple Unit System of Electric Railways," Frank J. Sprague. Secy., Wm. H. Wahl, 15 S. 7th St., Philadelphia, Pa.

CIVIL ENGINEERS' CLUB OF CLEVELAND.
Apr. 26. Secy., Wm. H. Searles, Case Library Bldg., Cleveland, O.

AMERICAN INSTITUTE ELECTRICAL ENGINEERS.
Apr. 27. Secy., R. W. Pope, 26 Cortlandt St., New York city.

CANADIAN SOCIETY OF CIVIL ENGINEERS.
Apr. 28. Secy., C. A. McNab, 112 Mansfield St., Montreal, Can.

ENGINEERING ASSOCIATION OF THE SOUTH.
Apr. 28. Nashville, Tenn. Secy., C. B. Wilson, Nashville, Tenn.

ENGINEERS' SOCIETY OF WESTERN NEW YORK.
May 2. Secy., H. J. March, Library Bldg., Buffalo, N.Y.

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.
May 2. Secy., C. L. Annan, City Engineers' Office, St. Paul, Minn.

TECHNICAL SOCIETY OF THE PACIFIC COAST.
May 6. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

ENGINEERS' CLUB OF KANSAS CITY.
May 9. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.

LOUISIANA ENGINEERING SOCIETY.
May 9. Secy., F. E. Pratt, 720 Madison Ave., New Orleans, La.

RAILWAY SIGNALING CLUB.
May 10. Secy., Earl M. Seitz, Signal Engr., C. & N. W. Ry., Chicago, Ill.

DENVER SOCIETY OF CIVIL ENGINEERS.
May 10. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Colo.

NORTHWEST RAILWAY CLUB.
May 10. Secy., T. A. Foque, Soo Line, Minneapolis, Minn.

NEW ENGLAND RAILROAD CLUB.
May 11. Secy., Edward L. Janes, P. O. Box 1158, Boston, Mass.

CENTRAL RAILWAY CLUB.
May 13. Secy., H. D. Vought, 114 Fifth Ave., New York city.

ST. LOUIS RAILWAY CLUB.
May 13. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.

MONTANA SOCIETY OF ENGINEERS.
May 14. Secy., Albert S. Hovey, Helena, Mont.

ILLINOIS STREET RAILWAY ASSOCIATION.
May 18. Annual meeting. Secy., C. K. Minary, Springfield City R. R., Springfield, Ill.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
May 30, June 4. Spring meeting Niagara Falls, N. Y. Secy., Prof. F. R. Hutton, 12 W. 31st St., New York city.

THE ENGINEERS' CLUB OF PHILADELPHIA.—A regular meeting of the club was held April 2 with 65 persons present. Dr. Henry Leffmann read the paper of the evening on "The Engineering Chemistry of Boiler Waters."

THE ENGINEERS' CLUB OF ST. LOUIS.—On April 6th a well-attended meeting was held at which Mr. Robert Moore delivered a talk on "Concrete Masonry." The numerous and varied uses to which concrete has been put within the last few years, the possibilities of concrete in building and drainage construction and the materials entering into its composition were discussed. Several photographs of concrete construction were shown.

THE FOUNDRYMEN'S ASSOCIATION OF PHILADELPHIA.—At the 77th meeting of this association held at the Manufacturers' Club, April 6, Mr. George Matlack, of the Wm. Cramp Ship Building & Engine Works, read a paper on "The New Patent Pneumatic Rammer." This was followed by a short paper on "The Mending of a Broken Steel Roll," by Mr. Henry Chalfingsworth, of the Phoenix Iron Co., Phoenixville, Pa.

ENGINEERING SOCIETY OF THE LEHIGH VALLEY.—The organization of this society was begun early in February, and on March 21 the organization was completed and a constitution adopted. On March 27 the following officers were elected: Pres., Prof. W. S. Franklin; Vice-Presidents, Jno. McNeal, Jr., and S. Higgins; Secy., L. O. Danse; Treas., H. R. Fehr; Managers, John Fritz, Chas. E. Webster, J. M. Hodge. The first regular meeting will be held on April 11, at which Mr. John Fritz will read a paper on "Armor Plate."

L. O. Danse, Secy.

WESTERN SOCIETY OF ENGINEERS.—At the meeting on April 6, two papers were read on the fireproofing of buildings. One by Gen. Wm. Sooy Smith on "Fireproof Construction," pointed out the enormous aggregate losses of property and life by fire, and advocated a special fireproofing plaster. Another by Mr. Frank B. Abbott, architect, on "The Fireproofing of Warehouses," in which he described the system employed by him in the Druecker warehouse, where all beams and columns are embedded in a cinder concrete, no air spaces being left. The floor is of the same material, on arches of expanded metal supported by light curved channels. All the surfaces are coated with hard plaster. In view of the importance of the subject it was decided that discussion should be taken up at the meeting of May 4.

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.—At the meeting on April 4 Mr. H. E. Stevens, who has lately returned from Panama, gave a practical talk on ship canals as exemplified in Panama and Nicaragua. There are some drawbacks to the Nicaragua project. No adequate foundations seem to be found for the dams, and a dam on the Ochoa site would necessitate many other embankments of questionable expediency. Furthermore, the physical features at the terminals, especially on the Atlantic, present obstacles very difficult to surmount. As to the estimated cost of this canal, notwithstanding the many surveys, data are still lacking on which to base an intelligent estimate. Inasmuch as one dollar in gold should accomplish nearly as much there as here, the unit prices on which the estimate of the Ludlow Commission is based, twice the unit prices in the United States, seem to be a little extravagant. In Panama the Chagres problem is rumored to be nearing solution. This is to divert the flood discharge of the river, which is nearly twice as large as that of the Mississippi at St. Paul. The terminal conditions are also favorable on this route; 3,500 men are now in the Culebra cut working by primitive and ineffectual methods. The evidences of extravagant waste and gigantic jobbery which marked the conduct of the work in Panama for several years are astounding. A remarkable feature of the clay cuts on both routes is the permanent standing of the ¼ to 1 slopes, unaffected by the torrents of rain. The average monthly precipitation at Greytown is about that of the average year with us.

C. L. Annan, Secy.

AMERICAN SOCIETY OF CIVIL ENGINEERS.—At the regular meeting, on April 6, Mr. George Hill, Assoc. M. Am. Soc. C. E., presented a paper on "Steel Concrete Construction." This was a discussion of 56 tests of concrete and expanded metal floors made at Long Island City last winter (Eng. News, Dec. 23-30, 1897). In considering the results obtained, Mr. Hill said:

Taking up the tests which seem to be fairly uniform, it is the author's judgment that a fair value for the ultimate compressive strength of fairly well mixed cinder concrete in the proportion of 1-2-5, or a thoroughly well mixed cinder concrete in the proportion of 1-3-6, should be 400 lbs. per sq. in. A stone or gravel concrete made of graded stone thoroughly mixed should show a compressive strength of at least 800 lbs. per sq. in. The tensile strength of concrete may be taken as one-fifth of the compressive strength. Assuming 75 lbs. per sq. in. as the safe working compressive steam for cinder concrete and 150 as that for stone concrete, the author proceeds to develop a formula which in its simplest form is $R = \frac{3}{4} C X^2$, in which R equals resisting moment of the section in inch pounds, C equals the safe working strength of concrete, given above, X equals the distance from the edge of slab or section to the neutral axis on the compression side. Several other expressions for the value of R are given, all, however, developed by considering the compression of the concrete on the upper side of the neutral axis and the tension of concrete and steel on the lower side.

Two sets of curves were given to facilitate the use of the formula.

A written discussion from Mr. A. L. Johnson was read by the Secretary. His experience and tests showed unit strengths fully two-thirds higher than Mr. Hill's figures, indicating that a 6-ft. 9-in. span, using 1-2-5 cinder concrete, and No. 16 expanded metal with a 2½-in. mesh, should stand a load of over 700 lbs. per sq. ft.

It must be borne in mind that the steel should be placed as low as possible. He criticised the author for carrying on the work of mixing and laying during freezing weather, claiming that this also was one cause of the low breaking load. Examining the values given in the table it was evident to him that there had been poor handling of materials, for in good practice results should not vary more than 20%. Mr. Hill stated that actual floors made up with adjoining spans were braced thereby, and had a much higher resistance. It was, however, impossible at present to determine the amount of increase and it was therefore unwise to figure on more than had been shown by the tests. Further, if spans were made with haunches the length of span was decreased, and therefore a larger load could be applied. No arch action was possible in a span of 6 ft., with a size of about 2 ins. and a thickness of not more than 2 ins.

Regarding freezing, tests have shown that the only effect of cold was to delay action and retard the setting of the concrete, and in all cases there had been sufficient time allowed when the weather was suitable to insure proper setting. The varying results are only such as would occur in practice, for the men doing the work were accustomed to mixing and using cement. Mr. Hill considered some of the formulae developed by different writers very interesting and intricate, but at present of little or no use, owing to their impracticability, for they introduced terms such as the modulus of elasticity of the cement, an absolutely unknown quantity.

Replying to the question, "How much did the addition of expanded metal increase the strength of a concrete floor such as those under consideration," Mr. Hill said that he had no information regarding this point. In another case, with which he was familiar, where flat arches were tested, it was found that without the addition of the metal the concrete was practically useless. To several members who took part in the discussion, more or less briefly, it appeared that too much uncertainty existed and that under ordinary working conditions it would be nearly impossible to obtain reliable work.

A question as to the effect of the sulphur in the cinder upon the metal used in the floor construction arose, but it was agreed that when properly mixed the cement coated the cinder and prevented any chemical action between the sulphur and steel.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Apr. 14.	Sewers,	Cleveland, O.	Apr. 7
Apr. 14.	School building,	Milwaukee, Wis.	Apr. 7
Apr. 14.	Improving road,	New York, N. Y.	Apr. 7
Apr. 14.	Sewers,	Anaconda, Mont.	Apr. 7
Apr. 14.	Pipe sewer, etc.,	New York	Apr. 7
Apr. 14.	Grading, draining, etc.,	Cleveland, O.	Apr. 7
Apr. 14.	Asphalt tiles (21,250),	New York, N. Y.	Apr. 7
Apr. 14.	Paving,	Buffalo, N. Y.	Apr. 7
Apr. 14.	Electric elevators (7),	Washington, D. C.	Apr. 7
Apr. 14.	Wheelwrights' materials, etc.,	New York	Apr. 7
Apr. 14.	**Grading, etc.,**	**Wapakoneta, O.**	**Mar. 24**
Apr. 14.	**Brick paving, etc.,**	**Flint, Mich.**	**Mar. 24**
Apr. 14.	**Jail building,**	**Glencoe, Minn.**	**Mar. 24**
Apr. 14.	**Fenders and pile sinkers,**	**St. Louis, Mo.**	**Mar. 17**
	Advertised, Eng. News, Mar. 17 to Apr. 7.		
Apr. 14.	**City hall plans,**	**St. Thomas, Ont.**	**Mar. 17**
Apr. 14.	Telephone system,	Wilow, Cal.	Mar. 31
Apr. 14.	Water wheels, generators, etc.,	Seattle, Wash.	Mar. 31
Apr. 14.	Electric light plant,	Harriman, Tenn.	Mar. 31
Apr. 14.	Road work,	Pittsburg, Pa.	Mar. 31
Apr. 14.	Pipe sewers,	Newark, N. J.	Apr. 14
Apr. 14.	Pipe sewers,	Erie, Pa.	Apr. 14
Apr. 14.	Crushed stone (4,000 tons),	N. Haven, Conn.	Apr. 14
Apr. 14.	Pipe sewers,	Boston, Mass.	Apr. 14
Apr. 14.	Macadamizing,	Boston, Mass.	Apr. 14
Apr. 14.	Pipe sewer,	New Haven, Conn.	Apr. 14
Apr. 15.	Water pipe,	Sandusky, O.	Apr. 14
Apr. 15.	Electric and gas lighting,	Geneva, N. Y.	Apr. 7
Apr. 15.	Cement,	Saginaw, Mich.	Apr. 14
Apr. 15.	Electric lighting,	Louisville, Ky.	Apr. 14
Apr. 15.	Electric light plant,	New Carlisle, Ind.	Mar. 31
Apr. 15.	**Sewer bonds ($150,000),**	**Memphis, Tenn.**	**Mar. 17**
Apr. 15.	**Sidewalks,**	**Mattoon, Ill.**	**Mar. 17**
Apr. 15.	**Lock and approaches,**	**New Orleans, La.**	**Mar. 10**
	Advertised, Eng. News, Feb. 17 to Mar. 10.		
Apr. 15.	**Grading, excavating, etc.,**	**Athens, O.**	**Mar. 24**
Apr. 15.	**Gas and electric fixtures,**	**Milwaukee, Wis.**	**Mar. 24**
Apr. 15.	**Steamboat,**	**Portland, Me.**	**Mar. 24**
	Advertised, Eng. News, Mar. 24 to Apr. 21.		
Apr. 15.	**Electric light plant,**	**Lewistown, Mont.**	**Mar. 24**
Apr. 15.	Granolithic walk,	Pittsburg, Pa.	Apr. 7
Apr. 15.	U. S. Building,	Portland, Ore.	Apr. 7
Apr. 15.	Electric light plant,	Hagerstown, Md.	Apr. 7
Apr. 15.	Improving road,	Richmond, Ind.	Apr. 7
Apr. 15.	Macadamizing, etc.,	Cincinnati, O.	Apr. 7
Apr. 15.	Grading bridge approaches,	Buffalo, N. Y.	Apr. 7
Apr. 16.	Steel bridge,	Waseca, Minn.	Apr. 7
Apr. 16.	**Water bonds ($5,000),**	**Tripp, S. Dak.**	**Mar. 24**
Apr. 16.	School building,	Logan, Utah.	Mar. 31
Apr. 16.	Sewer bonds ($50,000),	Spartanburg, S. C.	Mar. 31
Apr. 18.	**School building,**	**Atwater, Minn.**	**Mar. 24**
Apr. 18.	**School building,**	**Vinton, Ia.**	**Mar. 24**
Apr. 18.	**Steel bridge (100 ft.),**	**Rosecrans, Ill.**	**Mar. 24**
Apr. 18.	**Electric railway franchise,**	**Riverside, Cal.**	**Mar. 24**
Apr. 18.	**Brick sewer,**	**Toledo, O.**	**Mar. 17**
Apr. 18.	Buoy service,	Detroit, Mich.	Mar. 31
Apr. 18.	Water-works,	Hellertown, Pa.	Mar. 31
	Advertised, Eng. News, Mar. 31 and Apr. 7.		
Apr. 18.	Water-works, bonds, etc.,	Tripp, S. Dak.	Mar. 31
Apr. 18.	Hotel building,	Alexandria, La.	Apr. 7
Apr. 18.	Grading, Clay Center,	Neb.	Apr. 7
Apr. 18.	Office building,	Columbus, O.	Apr. 7
Apr. 18.	State capitol,	Harrisburg, Pa.	Apr. 7
Apr. 18.	Settling basins, filters, etc.,	Rock Island, Ill.	Apr. 7
	Advertised, Eng. News, Apr. 7 and 14.		
Apr. 18.	Bank building,	Jeannette, La.	Apr. 14
Apr. 18.	Copper wire screens,	Duluth, Minn.	Apr. 14
Apr. 18.	Paving (62 streets),	Pittsburg, Pa.	Apr. 14
Apr. 18.	Sewers,	Indianapolis, Ind.	Apr. 14
Apr. 18.	Asphalt paving,	Indianapolis, Ind.	Apr. 14
Apr. 18.	Grading,	Pueblo, Colo.	Apr. 14
Apr. 18.	Sewer bonds,	Rome, N. Y.	Apr. 14
Apr. 18.	Electric power franchise,	Martinez, Cal.	Apr. 14
Apr. 18.	Drawbridge,	Astoria, Ore.	Apr. 14
Apr. 18.	External fire protection,	Chicago, Ill.	Apr. 14
Apr. 18.	Building,	Newark, N. J.	Apr. 14
Apr. 18.	Brick paving,	Bradford, Pa.	Apr. 14
Apr. 18.	Brick paving,	Galesburg, Ill.	Apr. 14
Apr. 18.	Street work,	Jersey City, N. J.	Apr. 14
Apr. 19.	Water pipe, etc.,	Youngstown, O.	Apr. 14
Apr. 19.	Stairways, etc.,	Albany, N. Y.	Apr. 14
Apr. 19.	Bridge abutments,	Southington, Conn.	Apr. 14
Apr. 19.	Brick, cement, etc.,	Montreal, Que.	Apr. 14
Apr. 19.	University building,	Madison, Wis.	Apr. 14
Apr. 19.	Exposition building,	Omaha, Neb.	Apr. 14
Apr. 19.	Road rollers (2),	Hamilton, Ont.	Apr. 14
Apr. 19.	Courthouse bonds,	Anaconda, Mont.	Apr. 14
Apr. 19.	Pipe sewers,	Pottsville, Pa.	Apr. 14
Apr. 19.	Electric light plant,	Pittsburg, Pa.	Apr. 14
Apr. 19.	Naphtha lamps,	Binghamton, N. Y.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
Apr. 19.	School buildings,	Bayonne, N. J.	Apr. 7
Apr. 19.	Water-works,	Calhoun, Ga.	Apr. 7
Apr. 19.	Town hall,	Castlewood, S. Dak.	Mar. 31
Apr. 19.	Flag, curb, etc.,	Passaic, N. J.	Mar. 31
Apr. 19.	Court house bonds,	Anaconda, Mont.	Mar. 24
Apr. 19.	**Water-works,**	**Mineral Point, Wis.**	**Mar. 24**
	Advertised, Engineering News, Mar. 24.		
Apr. 20.	**Water-works,**	**Kingfield, Me.**	**Mar. 24**
Apr. 20.	Water-works,	Auburn, Ind.	Mar. 10
Apr. 20.	Brick building,	Clemson College, S. C.	Mar. 31
Apr. 20.	Railway (27¾ miles),	Scotland	Mar. 31
Apr. 20.	Dredging,	Buffalo, N. Y.	Apr. 7
Apr. 20.	Fire engine, hose, wagons, etc.,	New York	Apr. 7
Apr. 20.	Alarm box fixtures,	New York, N. Y.	Apr. 7
Apr. 20.	Water-works,	Edwardsville, Ill.	Apr. 7
Apr. 20.	Water-works,	Rat Portage, Ont.	Apr. 7
	Advertised, Engineering News, April 7.		
Apr. 20.	Pipe sewers,	Oneida, N. Y.	Apr. 14
	Advertised, Engineering News, Mar. 31.		
Apr. 20.	Steel boat fenders,	Hawaiian Government.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
Apr. 20.	Curb and gutter,	Piqua, O.	Apr. 14
Apr. 20.	Garbage disposal, etc.,	Troy, N. Y.	Apr. 14
Apr. 20.	Paving,	Buffalo, N. Y.	Apr. 14
Apr. 20.	Machine shops, etc.,	Cleburne, Tex.	Apr. 14
Apr. 21.	Asphalt paving,	Oswego, N. Y.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
Apr. 21.	Water pipe, hydrants, etc.,	New York	Apr. 14
Apr. 21.	Sewers,	Scranton, Pa.	Apr. 14
Apr. 21.	Paving stones, etc.,	Malden, Mass.	Apr. 14
Apr. 21.	Channel work,	Detroit, Mich.	Apr. 7
	Advertised, Eng. News, Apr. 7 and 14.		
Apr. 21.	Stand-pipe,	Jeffersonville, Ind.	Mar. 31
	Advertised, Eng. News, Mar. 31 to Apr. 14.		
Apr. 21.	**Paving (15,000 sq. yds.),**	**Waukesha, Wis.**	**Mar. 17**
	Advertised, Eng. News, Mar. 17 to Apr. 14.		
Apr. 22.	Canal work,	Boston, Mass.	Mar. 31
	Advertised, Eng. News, Mar. 31 and Apr. 7.		
Apr. 22.	Main sewer,	Cleveland, O.	Mar. 31
Apr. 22.	Water-works,	Prattsburg, N. Y.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
Apr. 22.	Reconstructing boulevard,	St. Louis, Mo.	Apr. 14
Apr. 22.	Paving,	Omaha, Neb.	Apr. 14
Apr. 22.	Bridge rebuilding bonds,	Newark, O.	Apr. 14
Apr. 23.	Sewer and street castings,	Canton, O.	Apr. 14
Apr. 25.	Church building,	Montreal, Que.	Apr. 7
Apr. 25.	Water-works,	Edwardsville, Ill.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
Apr. 25.	Cement walks (40,000 sq. yds.),	Wabash, Ind.	Apr. 14
Apr. 25.	Asphalt pvg (42,000 sq. yds.),	Ft. Wayne, Ind.	Apr. 14
Apr. 25.	Collecting garbage, etc.,	Newburg, N. Y.	Apr. 14
Apr. 26.	Pipe sewers,	Mount Vernon, N. Y.	Apr. 14
Apr. 26.	Brick paving, etc.,	Leechburg, Pa.	Apr. 14
	Advertised, Eng. News, Apr. 14 and 21.		
Apr. 26.	Fire engine,	Cleveland, O.	Apr. 7
Apr. 26.	Naval supplies,	Mare Island, Cal.	Mar. 31
Apr. 27.	Water-works,	Pittsford, N. Y.	Mar. 31
	Advertised, Eng. News, Mar. 31 to Apr. 14.		
Apr. 27.	Brick and asphalt paving,	Sandusky, O.	Mar. 31
Apr. 27.	U. S. building work,	Savannah, Ga.	Apr. 7
Apr. 27.	Railway (14½ miles),	Ireland	Apr. 7
Apr. 27.	Paving,	Buffalo, N. Y.	Apr. 14
Apr. 27.	Brick sewers,	Buffalo, N. Y.	Apr. 14
Apr. 28.	Dock,	West Point, N. Y.	Apr. 14
	Advertised, Eng. News, Apr. 14 and 21.		
Apr. 28.	Oil or vapor lighting,	Cleveland, O.	Apr. 7
Apr. 28.	Grading, etc.,	Cleveland, O.	Apr. 7
Apr. 28.	Main sewer, etc.,	Cleveland, O.	Apr. 7
Apr. 28.	Water tunnel, intake, etc.,	Cincinnati, O.	Mar. 31
	Advertised, Eng. News, Mar. 31 to Apr. 21.		
Apr. 29.	Mooring stones,	Portland, Me.	Apr. 7
Apr. 29.	Stone,	Cleveland, O.	Apr. 7
Apr. 29.	Cement sidewalks,	Irvington, Ind.	Apr. 7
Apr. 29.	Electric wiring,	Albany, N. Y.	Apr. 14
Apr. 29.	Trunk sewer,	Cleveland, O.	Apr. 14
Apr. 29.	Asphalt paving,	Minneapolis, Minn.	Apr. 14
Apr. 30.	Canal work,	Cornwall, Ont.	Apr. 14
Apr. 30.	Pipe sewers,	Boston, Mass.	Apr. 14
Apr. 30.	Sewers,	Washington, D. C.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
Apr. 30.	Paving,	Mahanoy City, Pa.	Apr. 14
	Advertised, Eng. News, Apr. 14 and 21.		
Apr. 30.	Electric light plant,	Superior, Wis.	Apr. 14
Apr. 30.	Bridge substructure, etc.,	Elmwood, O.	Apr. 14
Apr. 30.	Cast-iron floor,	Boston, Mass.	Apr. 14
Apr. 30.	**Plans for water-works,**	**Cricklade, Eng.**	**Apr. 7**
Apr. 30.	Repairing pavement,	Washington, D. C.	Apr. 7
	Advertised, Engineering News, April 7.		
Apr. 30.	Repairing dredge,	Charleston, S. C.	Apr. 7
	Advertised, Eng. News, Apr. 7 to 21.		
Apr. 30.	Town hall,	Singapore, S. S.	Jan. 13
Apr. 30.	Surfacing road (6 miles),	Milton, Mass.	Mar. 31
	Advertised, Eng. News, Mar. 31 to Apr. 14.		
May 1.	**Plans for sewage disposal,**	**Belper, Eng.**	**Dec. 16**
May 1.	**Cathedral,**	**Memphis, Tenn.**	**Mar. 17**
May 1.	**Electric lighting,**	**Sheboygan Falls, Wis.**	**Mar. 24**
May 1.	Brick paving,	Weston, W. Va.	Apr. 14
May 2.	Arc lighting (240 lights),	Elmira, N. Y.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
May 2.	Water pipe, hydrants, etc.,	Lebanon, Pa.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
May 2.	Asphalt or brick paving,	Geneva, N. Y.	Apr. 7
	Advertised, Eng. New, Apr. 7 to 28.		
May 3.	**Jail,**	**Dalton, Ga.**	**Mar. 17**
May 3.	**Steel cells (4),**	**Visalia, Cal.**	**Mar. 3**
May 3.	Steel bridge and abutments,	St. Mary, O.	Apr. 14
May 4.	Bridge,	Meadow Grove., Neb.	Apr. 14
May 5.	Steam heating, etc.,	Buffalo, N. Y.	Apr. 14
May 5.	Electric wiring, etc.,	Buffalo, N. Y.	Apr. 14
May 5.	Sewer bonds,	East Cleveland, O.	Apr. 14
May 5.	Brick paving (47,000 sq. yds.),	Tampa, Fla.	Apr. 7
	Advertised, Eng. New, Apr. 7 to 28.		
May 6.	Dredging,	Connecticut River, Conn.	Apr. 7
	Advertised, Eng. New, Apr. 7 to 28.		
May 7.	Building substructure,	Cheyenne, Wyo.	Apr. 14
May 9.	Water bonds ($300,000),	Cleveland, O.	Apr. 14
May 9.	Sidewalk and curbing, (1 m.),	Lafayette, Ind.	Apr. 7
May 10.	Levee (30 miles),	Memphis, Tenn.	Mar. 31
May 11.	**County bridge,**	**Gonzales, Tex.**	**Mar. 3**
May 12.	Mortar battery,	Boston, Mass.	Apr. 14
	Advertised, Eng. News, Apr. 14 to May 5.		
May 12.	Iron bridge,	Shreveport, La.	Apr. 14
May 12.	Iron bridge (324 ft.),	Easton, Md.	Apr. 14
May 14.	Repairing pavements, etc.,	Erie, Pa.	Apr. 14
May 14.	Keepers' dwelling,	Oswego, N. Y.	Apr. 14
	Advertised, Eng. News, Apr. 14 and 21.		
May 15.	Laying water pipe, etc.,	Hallowell, Me.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
May 18.	Extending water-works, etc.,	Prescott, Ariz.	Mar. 31
May 18.	Bridges (3),	Chicago, Ill.	Mar. 31
	Advertised, Eng. News, Mar. 31 to Apr. 21.		
May 18.	Bridge,	Chicago, Ill.	Apr. 7
	Advertised, Eng. News, Apr. 7 and 14.		
May 25.	**Water franchise,**	**Ridgewood, N. J.**	**Mar. 24**
	Advertised, Eng. News, Mar. 24 to Apr. 28.		
May 20.	Water bonds ($12,000),	St. Johnsville, N. Y.	Apr. 14
May 30.	Factory building, etc.,	Des Moines, Ia.	Apr. 14
May 31.	Electric light plant,	Malvern, Ark.	Apr. 7
June 1.	Cofferdam, masonry, etc.,	Chicago, Ill.	Apr. 7
June 1.	**Electric railway,**	**Zurich, Switzerland**	
June 24.	Electric plant,	Hawthorne, Australia	Mar. 10
July 1.	Water power,	Madras, India	Apr. 14
July 1.	Plans for sewer system,	Formby, Eng.	Oct. 28
July 24.	**Buildings,**	**Belem, Brazil**	Apr. 7
Sept. 12.	Hospital plans,	San Francisco, Cal.	Mar. 24
No date.	Car ferryboat,	Ann Arbor, Mich.	Apr. 14
"	Laying water pipe, etc.,	Boston, Mass.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
"	Grading and surfacing,	Muncie, Ind.	Apr. 14
"	Road,	Boston, Mass.	Apr. 14
	Advertised, Engineering News, Apr. 14.		
"	Bridge,	Romulus, N. Y.	Apr. 14
"	Temporary bridge,	New Baltimore, O.	Apr. 14
"	Stone piers (3),	Centerville, Tenn.	Apr. 14
"	Machinery,	Greensboro, N. C.	Apr. 14
"	Power plant,	Sault Ste. Marie, Mich.	Apr. 14
	Advertised, Eng. News, Apr. 14 and 28.		

RAILWAYS.

BABYLON & NORTH SHORE.—This company was incorporated in New York, April 9, with a capital stock of $100,000, to operate a line of railway by kineti and steam motors from Babylon to Northport, Suffolk county. The directors are: W. F. Norton and W. S. Nicoll, of Babylon (L. I.), N. Y.; A. P. Dodge, C. L. Easton, W. R. Brinckerhoff and E. A. Dodge, New York; J. H. Young and F. J. O'Donahue, Brooklyn, N. Y.; T. J. Main, Arlington, N. J.

BEAUMONT WHARF & TERMINAL.—The council of Beaumont, Tex., has granted a franchise to this company for the right of way over certain streets in this city for a belt railway line. W. A. Fletcher and John N. Gilbert are said to be interested.

BOMBAY & MOIRA.—Chas. E. Brush, Moira, N. Y., informs us that this company is the reorganization of the Saratoga & St. Laurens R. R. Co., which operated a line between Bombay and Moira, N. Y., a distance of nine miles. Operation was suspended Dec. 7, 1897, but is expected to resume about May 1. Vice-Pres., E. G. Reynolds, Bombay, N. Y.

BUTTE, ANACONDA & PACIFIC.—Reports state that this railway will be extended to Phillipsburg this summer. The line at present runs from Butte to Anaconda, a distance of about 47 miles. M. Donahoe, Gen. Mgr., Anaconda, Mont.

CHICAGO, ROCK ISLAND & TEXAS.—H. A. Parker, Vice-Pres. Chicago, Rock Island & Pacific Ry. Co., Chicago, Ill., informs us that this proposed 28-mile line of railway from Bridgeport to Jacksboro, Tex., has been located and work on the same commenced. The grading, bridging and track laying will be done by the railway company direct; the remainder of the work will be cut up into small contracts. It is hoped to have the line in operation by Aug. 1. Pres., M. A. Law, Topeka, Kan.; Ch. Engr., W. B. Worrell, Bridgeport, Tex.

CHICAGO, WAUKEGAN & NORTH SHORE.—This company was incorporated in Illinois, April 8, with a capital stock of $100,000. It is proposed to construct a railway from Benton to a point in Chicago, Ill., connections to be made with a new town to be built up at Winthrop. The incorporators are: James H. Van Vlissingen, John E. Colner, William C. Heinroth, Frank S. Read and Louis F. Nafis.

COLORADO VALLEY.—Robert S. Doubleday, of San Antonio, Tex., is reported to have been awarded a contract for the construction of the proposed extension of this railway from Melbourne to San Angelo, Tex., 52 miles. Track has already been laid from Sweetwater to Melbourne and a portion of the line is in operation. Irving H. Wheatcroft, Vice-Pres. and Gen. Mgr.; Geo. S. Mooer, Ch. Engr., Sweetwater, Tex.

ELK & HIGHLAND.—This company was incorporated in Pennsylvania, April 4, with a capital stock of $102,000, of which $4,500 is paid in. It is proposed to construct a steam railway from Coon Run, Elk county, to Portland, Pa. The incorporators are: Pres., D. H. Miller, J. B. Wright, A. P. Huey and C. H. Kemp, all of Kane, Pa.

GETTYSBURG TRANSIT.—Henry A. Sage, Pres., Easton, Pa., informs us that this proposed steam railway has been completed and that operation will be commenced about the middle of May. It runs through the battle grounds at Gettysburg, Pa.

GREAT NORTHERN.—Reports state that work is being rapidly pushed on the new Fosston branch of the Eastern Minnesota division of the Great Northern Ry. Grading between Duluth and Cloquet, Minn., is nearly completed, and track-laying is expected to begin shortly.

GUAYAQUIL & QUITO.—Edward Morley, Secy., 31 Broad st., New York, informs us that contracts have been let for the construction of this new railway in Ecuador, which was described in our issue of February 10. It is expected to begin work at an early date. Pres., Archer Harman, 31 Broad St.

KANSAS CITY, PITTSBURG & GULF.—It is announced that grading has been completed on the new branch from Redland, Ind. Ter., to Fort Smith, Ark., 15 miles. Track laying is expected to be finished by May 1. Robert Gillham, Ch. Engr. and Gen. Mgr.; Bernard Corrigan, Contractor, both of Kansas City, Mo.

KANSAS, OKLAHOMA CENTRAL & SOUTHWESTERN.—Reports state that a portion of this road will soon be constructed from Coffeyville, Kan., to Bartlesville, Ind. Ter., a distance of about 60 miles; further extensions to Vernon, Tex., 300 miles from Coffeyville, are contemplated. Pres., J. H. Bartles, Bartlesville, Ind. Ter.

LAS VEGAS, MORA & TAOS.—Press reports state that preliminary work on the construction of this railway will soon be commenced. The proposed line from Las Vegas to Taos, N. Mex., will approximate 85 miles in length, and will open up one of the most productive valleys in the West. It is expected to use a compound steam and electric motor system. Pres., F. A. Manzanares; Secy., Robt. L. M. Ross, East Las Vegas, N. Mex.

MEMPHIS & SUNFLOWER RIVER.—The governor of Mississippi has issued a proclamation for the organization of this new company, for the construction of a railway from Indianola, in Sunflower county, northerly to Dockery, thence to the northern boundary of Sunflower county; also a line of railway from Dockery westerly to Boyles, thence in a westerly direction to the Mississippi River, with the privilege of purchasing and using the railway now partially constructed on the last-named line from Dockery to Boyles, and on westerly. The time within which the new road is to be completed is within two years from the time of organization. The organizers are: A. T. Averill, W. H. Durin, George T. Hedges, Chem M. Averill, Harry T. Hedges, all of Cedar Rapids, Ia.

NEW YORK, NEW HAVEN & HARTFORD.—E. P. Dawley, Div. Engr., Providence, R. I., informs us that work has not yet been started towards the abolition of the Millville grade crossing on the Providence & Worcester

branch of this railway, in Blackstone, Mass. Work will include four abutments and about 40,000 cu. yds. of earth excavation and filling. Another reference to abolition of grade crossing in Blackstone, as decided upon by the commissioners, may be found in our last issue.

NICARAGUA.—It is announced that the Atlas Steamship Co., 24 State St., New York, has purchased the Nicaragua Ry. from the government. The line, which is not yet fully completed, extends eastward from the Pacific Coast about 58 miles, and the eastern division, westward from Managua about 32 miles to Granada, steamers on Nicaragua Lake connecting the two ends of the railway line.

NORTHERN PACIFIC.—Press reports from Spokane, Wash., state that Wren & Greenough, of Spokane, have been awarded a contract for the general repairing of the company's main line between Cheney and North Yakima, including the laying of over 50 miles of track between Cheney and Pasco with 72-lb. rail, which is to replace the 56-lb. rail now in use. E. H. McHenry, Ch. Engr., St. Paul, Minn.

PENNSYLVANIA.—Frank G. Wolfe, C. E., Board of Trade Bldg., Scranton, Pa., informs us that surveys have not yet been begun for the proposed steam railway to be built in this state between South Gibson and Jackson, 32 miles, with a possible extension to Buzard's Roost, in order to connect with the Pennsylvania R. R. Connections will be made with the Erie R. R. and the Delaware & Hudson R. R. at or near Lanesboro, Pa.; the Delaware & Hudson connection may be made at Thompson instead of at Lanesboro. Negotiations are being made for necessary capital, and contracts will probably be let by July. Company is not yet organized.

PLANTER'S TERMINAL.—This company was incorporated in Texas, March 30, with a capital stock of $250,000. It is proposed to build a line 16 miles in length from Sherman to Van Alstyne, Tex. The incorporators are: W. H. Bean and G. B. R. Smith, of Howe, Tex.; E. A. Turner and L. Garver, of Van Alstyne, and others.

POINT BREEZE & GIBSON'S POINT.—This company was incorporated in Pennsylvania, April 11, with a capital stock of $18,000, to construct a steam railway from a point on the Chester branch of the Philadelphia & Reading Ry. to the 22d Ward of Philadelphia, Pa., a distance of 1½ miles. The incorporators are: Pres., Malcom Lloyd, N. W. Harkness, C. E. Bushnell, Edward P. Cooper and Wm. D. Cotton, all of Philadelphia.

RICHMOND, PETERSBURG & CAROLINA.—The W. P. Chapman Co. of Petersburg, Va., which has received the contract for constructing this proposed line between Petersburg, Va., and Ridgeway, N. C., about 80 miles, has awarded sub-contracts for grading to Wright & Carpenter, C. B. Donaghy, Hutton & Co., and Davis Bros. & Frey; for grading and bridging, to Oliver & Cronin; for masonry work, to L. B. Bruce & Co. B. B. Seymour, Ch. Engr., Petersburg, Va.

SAN FRANCISCO & SAN JOAQUIN VALLEY.—Grant Bros., of San Francisco, Cal., are said to have been awarded the contract for building an extension of this railway from Visalia southwest to the main line at Joaquina, a distance of 20 miles. W. B. Storey, Jr., Engr. and Gen. Supt., San Francisco, Cal.

SOUTHERN.—Press reports state that bids will soon be asked for an extension of the Memphis division of this system from Chattanooga, Tenn., to Stevenson, Ala., a distance of 36 miles. Work is expected to begin this fall, and to cost about $500,000. C. H. Hudson, Ch. Engr., Washington, D. C.

SOUTH JERSEY.—Robert P. Linderman, Pres. Bethlehem Iron Co., South Bethlehem, Pa., who purchased this railway at public auction, March 29, informs us that no extensions to the line are contemplated by the reorganization committee, but that some repairs and improvements will be made.

VALDOSTA & ALBANY.—This company was incorporated in Georgia April 4, with a capital stock of $100,000, to construct a railway from Albany to Valdosta, Ga., 75 miles. The incorporators are: Thomas Crawford, J. R. Dasher, T. C. Shaw, T. W. Shaw, F. W. Lane, J. F. Lewis, J. M. Briggs, C. R. Ashley, E. P. Rose, J. A. Dasher, Jr., all of Valdosta.

VIRGINIA, FREDERICKSBURG & WESTERN.—We are informed that the right of way has been obtained and capital secured for this proposed line from Fredericksburg to Millerbeck, Va., 102 miles. Route is now being located. Contract has been let to the Union Construction & Development Co., of which J. W. Coffin, 18 Wall St., New York, and Fredericksburg, Va., is general manager.

WASHINGTON & FRANKLIN.—Bids have been asked, according to reports, for constructing this proposed branch of the Western Maryland R. R. between Hagerstown, Md., and Altenwald, Pa. C. A. Vandevanter, Principal Asst. Engr., Baltimore, Md.

STREET AND ELECTRIC RAILWAYS.

HAMPTON, N. H.—The Hampton & Amesbury St. Ry. Co. contemplates the building of an extension of its line through Hampton Falls and Seabrook.

PORTSMOUTH, N. H.—A. F. Gerald and other incorporators of the Portsmouth & Rye Electric Ry. Co. have sold a charter to the Boston & Maine R. R. Co.; reported price, $25,000. The Boston & Maine is already surveying the route, and expects to complete the road and put it in operation during the present season. Pres., Lucius Tuttle, Boston, Mass.

BOSTON, MASS.—It is reported that the Boston Elevated Ry. Co. will increase its power facilities by the addition of a 4,200-HP. engine and corresponding generators at its central power station, costing about $125,000. This apparatus will be twice as large as any ever used by the West End Co. Minor additions will also be made at other power houses. Plans for construction of the elevated railway are now complete and will soon be considered by the railway commissioners. Pres., Wm. A. Gaston; Ch. Engr., Geo. A. Kimball, Exchange Bldg., Boston.——The Newtonville & Watertown St. Ry. Co. has petitioned the railway commissioners for authority to increase its capital stock to $100,000, in order to construct an extension of its tracks from Watertown through North Beacon St., Boston, to Union Square, at Allston. Engr., Gilbert Hodges.

AUBURN, N. Y.—It is reported that T. H. Mather, of Syracuse, N. Y.; I. L. Stacey and William Slossen, of Geneva, N. Y., have begun work upon the survey of the line of the proposed new electric line from Auburn to Skaneateles and thence to Marcellus, Howlett Hill and by Split Rock to Syracuse. The route from Skaneateles to the Syracuse line is 16½ miles. The Inter-Urban Co., of Auburn, has a franchise from Skaneateles to Auburn. The section of the same line from Auburn to Geneva is built only part way. Cayuga to Geneva, the state railway commission refusing to allow the line to be built from Auburn to Cayuga. Surveyors have been at work about a week on that part of the line near Marcellus.

BUFFALO, N. Y.—U. L. Upson, Secy. and Gen. Mgr., Buffalo, Hamburg & Aurora Ry. Co., 1005 Ellicott Square, informs us that the contract for the track construction and overhead work for 19 1-6 miles of electric railway for this company has been awarded to G. S. W. Brubaker, of Philadelphia, Pa., at $185,000. The company will put in its own power house, at an additional cost of from $75,000 to $80,000. By the terms of the contract work is to begin within 30 days, and the first division of the line to Hamburg is to be completed by Sept. 1.

LIMA, N. Y.—Crage & Tench, 139 Main St., Buffalo, N. Y., have been awarded the contract for building the Lima & Honeoye Falls electric railway. The contract also includes the wiring of the streets of both villages for electric lights and the construction of the power house. A large force of men will begin work next week.

MAMARONECK, N. Y.—Reports state that the village trustees of Mamaroneck have denied the application of the Huguenot Electric Ry. Co. for a franchise on the Boston Post Road, and that the company, if its line reaches the village, will be obliged to select one of the country roads. Pres., Jas. G. Duy, 100 Broadway, New York.

NEW YORK, N. Y.—The Rapid Transit Commission officially tendered to the Manhattan Elevated R. R. Co., April 11, seven franchises for the extension of its lines. Pres., Geo. J. Gould, 71 Broadway.

SYRACUSE, N. Y.—W. K. Niver has applied to the council of this city for a franchise to build an electric railway.

ROUND BROOK, N. J.—The Brunswick Traction Co., acting in connection with the New York & Philadelphia Traction Co., is said to be making arrangements to secure bids for the construction of a line from Round Brook to New Brunswick, through Franklin township, Somerset county. Gottfried Krueger, Pres. Brunswick Traction Co., New Brunswick, N. J.

MOUNT HOLLY, N. J.—A further hearing on the application of the New York & Philadelphia Traction Co. for the privilege of building on the county roads will be given by the freeholders on April 30. Vice-Pres., J. Blair McAfee.

EASTON, PA.—It is reported that the route of the proposed Easton, Palmer & Bethlehem electric railway, connecting Easton and Bethlehem, is being laid out, and work on the road will be commenced in a few days.

SCOTTDALE, PA.—The council of this place granted a franchise to the Scottdale, Everson & Broadford St. Ry. Co., April 4, for the right of way on Broadway, 5th Ave., Church and Bridge Sts.; construction must begin within six months. The franchise was accepted by W. F. Sadler, Jr., W. N. Porter and J. R. Byrne, representatives of the company.

BALTIMORE, MD.—J. G. White & Co., have commenced the construction of the overhead work on the proposed Columbia & Maryland Ry. Co.'s new electric line on Saratoga, Franklin and other streets. It is said that the Baltimore Security & Trading Co., which purchased this line under foreclosure proceedings, intends to complete the line as far as Ellicott City, Md., and to build the Washington division to Laurel.

MYERSVILLE, MD.—The directors of the Middletown & Myersville Electric Ry. Co. are said to have selected C. McLemney, of Baltimore, Md., as the engineer for the new railway. Work to be commenced on the road at once.

WASHINGTON, D. C.—The following bills have been passed by the house of representatives: To incorporate the Washington & University R. R. Co., to run from Connecticut Ave., past the American University to the District line; to incorporate the Suburban R. R. Co., to run from 19th St. and Pennsylvania Ave. S. E., north and east to the Bladensburgh road and the District line; Richard K. Crallé and others; to grant permission to the Washington & Gettysburg R. R. Co., to operate an electric railway from the District line and 14th St., east, to the city.

NEWPORT NEWS, VA.—The town council has granted a franchise to the Newport News, Hampton & Old Point Ry. & Electric Co., which proposes to build 12 miles of electric railway through this place to Old Point. Wm. J. Payne, of Richmond, Va., is interested.

JACKSON, MISS.—It is reported that the city council, April 5, granted a franchise to build 5 miles of electric railway and a lighting plant to Gen. S. T. Carnes, of Memphis, Tenn., and H. H. Corson, representative of the General Electric Co., of Schenectady, N. Y. Work on the road is to begin in 60 days and on the lighting plant in five months. The city agrees to pay $114 a year for 10 years for 120 lights. This franchise is practically the same as was forfeited two months ago by Mayor McKisson, of Cleveland, O.

LUDLOW, KY.—Monte L. Green, Pres. Crescent Springs & Erlanger St. R. R. Co., 130 Longworth St., Cincinnati, O., writes us that the length of this proposed electric railway, from Ludlow to Florence, is 7 miles. Mr. Green desires to correspond with street railway promoters.

CLEVELAND, O.—Reports state that a branch of the Cleveland, Painesville & Eastern Electric Ry. will be built from Mentor to Chardon, a distance of 10 miles. The surveys have been made and the right of way secured. The company has agreed to build the road as far as Little Mountain, where a station will be built within 300 ft. of the Pine Crest Hotel. The village of Chardon is to build the road from that town to the mountain.

MANSFIELD, O.—The Citizen's Electric Ry., Light & Power Co. has petitioned for an increase of capital stock from $125,000 to $400,000, for the purpose of making improvements and changing the terminals. Pres., Reid Carpenter.

LAPORTE, IND.—The county commissioners, April 4, granted a franchise to John W. Lovett and W. H. Huffman, of Anderson, Ind., for an electric railway between Laporte and Michigan City, referred to in our issue of last week.

MOUNT CLEMENS, MICH.—The council has granted a franchise to the Detroit, Lake Shore & Mount Clemens Ry. Co. to operate within the city limits over Macomb St. and Crocker Ave.

CHICAGO, ILL.—The city council, on April 6, granted a franchise to the Chicago, Milwaukee & St. Paul allowing that company to use electricity on its Evanston branch, 20 miles in length, for 20 years. D. J. Whittemore, Ch. Engr., Chicago, Ill.

QUINCY, ILL.—J. C. Hubinger was granted a 30-year franchise by the council, April 7, for the construction of a street railway in this city.

JONESBORO, ARK.—We are informed that a company has been organized, and $8,000 in stock subscribed, for the construction of a street-car line from this place to Nettleton, 4 miles. It is expected to begin work soon. Catalogues and quotations are desired from manufacturers and dealers in light locomotives. The use of gas engines is also being considered. Engr., W. O. Bunce, Jonesboro.

LITTLE ROCK, ARK.—The Army Post Electric St. Ry. Co., of this city, was incorporated April 4, with a capital stock of $85,000, of which $25,000 is paid in. The company will build an electric line from North Little Rock, at the foot of the free bridge, to Fort Logan H. Roots, a distance of 3½ miles. The incorporators are: Pres., D. G. Gibson, of St. Louis, Mo.; Vice-Pres., Andrew F. Browne, of St. Louis; Secy. and Treas., R. F. Sojourner, of Little Rock.

BOULDER, COLO.—The council granted a franchise for the construction of a new electric line, April 4, and it is said that work will begin soon. The City Electric Light Co. will probably furnish the power.

FAIRFIELD, UTAH.—J. S. Jacobs, Gen. Mgr., Salt Lake & Mercur R. R. Co., Salt Lake City, Utah, informs us that no definite action has yet been taken towards the installation of an electric motive system on this railway from Fairfield to the Mercur mining camp. Pres., E. H. Airis, Salt Lake City.

ELECTRIC LIGHT AND POWER.

BELMONT, N. H.—Chas. O. Judkins is reported to have been awarded a contract for constructing a plant in this place for A. L. Franks & Co., Manchester, N. H.

FAIRFAX, VT.—W. H. Lang, of the Lang & Goodhue Mfg. Co., noted last week as investigating the water power at Fairfax Falls for St. Albans parties, writes us that plans and estimates for the work will probably be completed in two weeks. It is proposed to develop 3,000 HP. to be transmitted to St. Albans, 13 miles distant, for light, heat, power and railway purposes. The Lamoille River at this place has a fall of 83 ft. The work will include a penstock 300 ft. long.

CONCORD, MASS.—Richard F. Barrett writes us that nothing has yet been done in regard to the proposed plant. It is expected to begin work soon. The plant will have 450 or more incandescent lights.

LEE, MASS.—It is stated that the Lee Electric Co. will improve its plant and extend it to South Lee. Supt., W. E. Usher. J. C. Chaffee, Mgr., writes us that no contracts are to be let.

MELROSE, MASS.—John J. Skelding, C. M. Cox, John Larrabee and S. H. Buttrick are on a committee to consider the question of constructing a plant.

ALBANY, N. Y.—Bids are asked until April 29 for installing the electric light wiring for the eastern approach, porticoes and lobbies, and completing the electric wiring for the western staircase and fifth story of the state library; also for furnishing the electric light fixtures for the eastern approach, lobbies, porticoes and western staircase for the state capitol. State Arch., I. G. Perry; Supt. Pub. Wks., Geo. W. Aldridge, Albany.

BUFFALO, N. Y.—The Cataract Power & Conduit Co., Niagara Falls, N. Y., has filed plans for conduits in certain streets.

BUFFALO, N. Y.—Bids are asked until May 5 for the electric wiring, heating, etc., for the state armory. Archs., Lansing & Beierl, 371 Pearl St., Buffalo; Chas. W. Tillinghast, Adj.-Gen., Albany.

ELMIRA, N. Y.—Bids are asked until May 2 for lighting the streets with arc lights for one, two or five years, from Nov. 7, 1898. There will be required 240 lights of 2,000 c. p. each. M. H. Murphy, Cy. Clk.

LIMA, N. Y.—Crage & Tench, 139 Main St., Buffalo, have received a contract for wiring the streets of this village and of Honeoye Falls for electric lights, as referred to under Electric Railways.

MEDINA, N. Y.—This place has voted to issue $14,000 in bonds for electric lighting and improvements to the water-works.

WATERPORT, N. Y.—Geo. F. Lum, Albion, N. Y., and A. H. Squire are reported as interested in a proposed plant.

BRIDGEVILLE, PA.—Press reports state that work is to be started at once on the complete overhauling of Reading Bros.' coal mine at Bridgeville. The operators propose installing electric-hauling machinery, erecting a new tipple, and making general improvements. The present output of 750 pit cars daily will be doubled, and the new tipple will be of a height to accommodate the new design of hopper cars. Contracts have been let for two 75-K.-W. generators, two motors and boilers, together with all necessary equipment and electrical appliances.

CARLISLE, PA.—The council has granted a franchise for lighting this place to W. F. Chatham.

CONFLUENCE, PA.—M. Heurd Burgess, writes us that the town wishes to have a plant and would like a company to submit a proposition. Population, 1,800.

PITTSBURG, PA.—Bids are asked until April 19 for installing a plant in the court house in this city. O. L. Spaulding, Asst. Secy. Treasury Dept., Washington, D. C.

WILKINSBURG, PA.—The Rural Electric Light Co. has applied for a franchise.

BALTIMORE, MD.—Bids will be asked at once, it is stated, for furnishing and installing a plant at the House of Refuge, at a cost of $50,000. Jas. A. Gould and Wm. A. Knapp are on the committee.

HAGERSTOWN, MD.—Press reports state as follows: Powell Evans, of Philadelphia, former owner of the plant in this city, is visiting the towns in the Cumberland Valley in the interest of a scheme to change the motive power of manufacturing plants from Winchester to Chambersburg. Mr. Evans has obtained the rights from the states of Maryland and West Virginia to erect a dam across the Potomac River, at Weverton. His plan is to place in position there turbine wheels, and to erect a power plant from which to furnish electric power to the factories in this section of the valley. Mr. Evans says he is backed by a Philadelphia syndicate, with a capital stock of $6,000,000.

HARPER'S FERRY, W. VA.—G. R. Bready, of the Harper's Ferry Paper Co., writes us that it has not yet been decided what will be done in regard to the proposed power plant, reported in our issue of last week.

MACON, GA.—Local papers state that work will soon be begun on the proposed new plant for this city.

GREENVILLE, MISS.—W. Yerger, Mayor, writes us that this place voted March 31 against issuing bonds for a city plant.

HOLLY SPRINGS, MISS.—Guild & Co., Chattanooga, Tenn., are reported to have been awarded the contract for constructing the plant and water-works, as advertised in Engineering News, at $35,000.

NASHVILLE, TENN.—The Cumberland Electric Light & Power Co. submitted the only bid April 4 for lighting this city. No action was taken and it is likely that new bids will be asked.

LOUISVILLE, KY.—Bids are asked until April 15 for lighting the city for three, five, seven or ten years. This service has heretofore been performed by the Louisville Electric Light Co., who own their plant, poles, wires and lamps. They now have 1,319 2,000-c. p. arc lamps in service. Bidders therefore, not already owning electric light plants in the city, must make their proposals to cover a new plant, etc.; check, $1,000. Thos. P. Craig, Secy. Bd. Pub. Wks.

BELLEVILLE, O.—John A. Stuff, Mayor, writes us that this place has voted against issuing bonds for purchasing the plant.

HURON, O.—This place voted April 5 in favor of constructing a plant.

MIDDLEPORT, O.—Jas. H. Ralston, Mayor, writes us that this place voted April 4 against issuing bonds for a plant.

MINSTER, O.—G. L. McKibben, Cy. Engr., of Van Wert, O., has been engaged to prepare plans and specifications for the proposed plant.

WAPAKONETA, O.—This place voted April 4 to issue $5,000 in bonds for enlarging the plant.

CORUNNA, MICH.—This place voted April 4 to construct a plant, according to reports.

PETOSKEY, MICH.—D. D. Whitten, Cy. Clk., writes us that this city voted April 4 in favor of constructing a plant at a cost of $6,500. The plant will have 75 2,000-c. p. arc and 300 to 450 16-c. p. incandescent lights. The city will want engines, dynamos, overhead wire, etc.

SAULT STE. MARIE, MICH.—Bids are asked by the Lake Superior Power Co. for constructing a power plant at this place, as described in our advertising columns.

DECATUR, ILL.—The council has let a contract for furnishing 45 additional arc lights for its plant to the Fort Wayne Electric Corporation, Fort Wayne, Ind., according to reports. O. D. Hill, Chn. Com.; Leon Sullivan, Cy. Elec.

HIGHLAND, ILL.—An election will be held April 19 to vote on the question of issuing $12,000 in bonds for a plant.

TRENTON, ILL.—Fuller & Tritle, St. Louis, Mo., are reported to have been awarded the contract for constructing a plant for a local company.

WAUKEGAN, ILL.—Local papers state that arrangements have been completed for extending the plant of the Waukegan Electric Light Co. The power house will have an addition of 30 × 34 ft., and will contain two engines, one of 600 HP., and additional dynamos. Blake & Price have been awarded the contract for erecting the building addition. Mgr., M. H. Hussey.

LA CROSSE, WIS.—E. C. Swarthout, Bangor, Wis., writes us that he proposes to build a line four miles long from the plant owned by him and now lighting West Salem. No contracts have yet been let; work not to be begun until July.

SUPERIOR, WIS.—Bids are asked until April 30 for furnishing and constructing a plant to cost $75,000. The plant will have a 450-HP. boiler, a 500-HP. engine, 3,500 16-c. p. incandescent lights, a brick power house, 50 × 100 ft., with a stack 60 ins. × 120 ft., etc. Mayor, C. S. Starkweather; Chn. Com., John McGrath; Cy. Engr., E. B. Bank.

VALLEY JUNCTION, IA.—The council is reported as considering favorably the question of building a plant and water-works.

FRAZEE, MINN.—The council is reported to have awarded the contract for constructing a plant to the Commonwealth Lumber Co.

TWO HARBORS, MINN.—The proposed plant noted in last week's issue, will have a capacity of 30 arc and 1,500 incandescent lights; estimated cost, $6,000. A. D. Holliday, Chn. Com.

HELENA, MONT.—It is stated that the Westinghouse Electric & Mfg. Co., Pittsburg, Pa., has been awarded the contract for the machinery for the proposed power plant on the Missouri River for the Helena Water & Electric Power Co.

PRESCOTT, ARK.—G. Jaeger, Rich Hill, Mo., is reported to have begun the construction of the proposed plant and water-works to cost about $32,000.

CLARKSVILLE, TEX.—Alderman John M. Mims, of the committee, writes us that the committee is considering the cost of a plant of 40 arc and 750 incandescent lights.

EDNA, TEX.—The question of building a plant and water-works is being considered, according to reports.

HOUSTON, TEX.—It is stated that the committee will soon submit its report for a municipal plant. Hugh Hamilton and R. L. Long are on the committee.

SILVERTON, COLO.—C. H. H. Kramer, Mayor, writes us that this place voted April 5 against issuing bonds for a plant.

CHEYENNE, WYO.—H. B. Patten, Cy. Engr., writes us that it is proposed to increase the boiler capacity of the present pumping station and add a dynamo for a new arc and incandescent plant for the city buildings and streets only. The plant will have 100 1,200-c. p. and 200 16-c. p. lights.

AZUSA, CAL.—The Azusa Electric Lighting & Power Co. is reported to have been granted a franchise for furnishing this place and other towns with power.

HEALDSBURG, CAL.—C. H. Powell, Cy. Clk., writes us that the proposed plant, for which, with water-works, $80,000 in bonds were voted for March 28, as noted in last week's issue, will have a capacity for furnishing 30 1,400-c. p. arc and a large number of 16-c. p. incandescent lights. W. H. Barnes, Mayor.

MARTINEZ, CAL.—Bids are asked until April 18 for the purchase of a 20-year franchise for furnishing this town with power. C. P. Baird has applied for this franchise. H. Hurley, Town Clk.

PLEASANTON, CAL.—This place will vote informally at the election this month on the question of issuing bonds for a plant and water-works, according to reports. Population (1890), 984. J. H. Neal, Town Clk.

VANCOUVER, B. C.—Armstrong & Morrison, proprietors of the foundry in East End, are figuring on water-works and a plant for Glendora, to cost $60,000, and also for construction of a 40-in. pipe to be used in connection with the electric power plant to be situated not far from Vancouver.

HAWTHORNE, VICTORIA, AUSTRALIA.—Bids are asked until June 24 for constructing a complete plant for this place, including buildings, boilers, lamps, etc. Address Lt.-Gen. Sir Andrew Clarke, 15 Victoria St., Westminster, London, S. W., Eng.; Henry T. Haynes, Town Clk. and Engr.

NEW COMPANIES.—Canadian Electric & Water Co., Ottawa, Ont.; $150,000; John Haggert, Perth, Ont.; Alphonse Charlebois, Contractor, Montreal, Que.; Sir Sanford H. Fleming, Ottawa.

National Incandescent Light & Heating Co., Nashville, Tenn.; $600,000; to use an invention of R. L. Doran's; Thomas W. Wrenne, Robert L. Doran, Thomas E. Webster, Willis W. Wilkerson and Oliver J. Timothy.

De Lery Light Co., of Jersey City, N. J.; $500,000, with $1,000 paid in; Joseph B. De Lery, Casper H. Eicks, Otto R. Saint and Henry P. Chilton, New York; Edgar L. Jones, Newark, N. J.

Cleveland Electric Light Enlarging Co., Cleveland, O.; $10,000; Jacob J. Denmark, Harry C. Mason, Fred L. Taft, W. T. Black.

Carbide Lighting Co., Niagara Falls, N. Y., to deal in lighting machinery and supplies; $100,000; P. Devin, 120 Lexington Ave., Buffalo; J. B. Rice, of Cambridge; J. C. Frost and T. J. Wilcox, New York.

Prismatic Light Co., Chicago, Ill.; $100,000; A. G. Spalding, H. A. Christey, A. D. Eddy.

Salmon City Electric Light & Power Co., Salmon City, Idaho; $10,000; G. G. Shaver, William F. Boxwell, William Peterson, W. T. Robinson, R. W. McBride, Ed. Mingle.

Kern-Rand Co., Randsburg, Cal.; $750,000; to furnish electric power from the south fork of the Kern River; $750,000; R. J. Waters, J. W. Eddy, W. W. Stewart, of Los Angeles, Cal.

BRIDGES.

WATERBURY, VT.—D. T. Harvey, Ch. Selectman, informs us that the Vermont Construction Co., St. Albans, has been awarded a contract to construct an iron bridge at this place.

BOSTON, MASS.—The following bids were received by the Boston Transit Commission, 20 Beacon St., April 5, for painting and paving the Charlestown bridge; all are local bidders: Patrick O'Hara & Co., $28,525; W. J. Lawler, $21,200; H. Gore & Co., $23,454; James A. Colson, $27,000; D. J. Kiley & Co. (accepted), $20,813; Wm. L. Miller & Co., $26,639; A. A. Libby & Co., $30,350; Bradley & McLaughlin, $41,676.

SOUTHINGTON, CONN.—Bids are asked until April 19 for constructing the abutments of two bridges. Thos. S. Hall, Chn. Bd. Water Comrs., New Britain.

WEST SENECA, N. Y.—Reports state that Frederick K. Wing, 111 White Bldg., Buffalo, N. Y., is preparing plans for two iron plate girder bridges 80 ft. long and 30 ft. wide over the railway tracks on the Ridge Road.

ROMULUS, N. Y.—Bids are asked by the council for constructing a bridge over Rising Creek, near Millard, according to reports.

SYRACUSE, N. Y.—A bill is before the council for constructing a bridge at Bridge St. to cost $10,000.

ALBANY, N. Y.—A bill by Senator Nussbaum has been passed authorizing the construction of a bridge across the Mohawk River at Dunsbach Ferry.

EASTON, MD.—Bids are asked until May 12 for constructing an iron bridge, 324 ft. long, over the Choptauk River at Dover Bridge, according to reports. Thos. R. Green, Clk. Caroline county, Denton, Md.; Chas. F. Stewart, Clk. Talbot county, Easton.

BALTIMORE, MD.—City Commissioner Lewes has asked the council for an appropriation of about $20,000 for repairs to certain bridges.

ATLANTA, GA.—The following bids were received by the council April 4 for the steel superstructure of the Mitchell St. viaduct; the bids for the masonry work are given under Contract Prices:

Schultz Bridge & Iron Co., McKees Rocks, Pa.	$53,000
Milwaukee Bridge & Iron Co., Milwaukee, Wis.	56,700
New Jersey Steel & Iron Co., Trenton, N. J.	53,300
Edge Moor Bridge Works, Wilmington, Del.	47,750
Union Bridge Co., Athens, Pa.	56,640
Gude & Walker, Atlanta, Ga.	50,200
Massillon Bridge Co., Massillon, O.	54,775
Carnegie Steel Co., Pittsburg, Pa.	49,244
Youngstown Bridge Co., Youngstown, O.	51,386
G. E. King Bridge Co. (L. B. Austin, Agt.), Atlanta	53,800
R. C. Hoffman & Co., Baltimore, Md.	52,797
Toledo Bridge Co., Toledo, O.	50,434
Grant Wilkins, Atlanta, Ga.	47,598
Wrought Iron Bridge Co., Canton, O.	50,996
Wisconsin Bridge & Iron Co., Milwaukee, Wis.	53,647
King Bridge Co., Cleveland, O.	55,679

BREAUX BRIDGE, LA.—L. Dupries, Mayor, writes us that a contract was awarded to the King Bridge Co., Cleveland, O., April 5, for constructing a steel bridge, 220 ft. long and 16 ft. wide, on concrete foundation, at $6,950. Two other bridges will probably be built this year between this place and St. Martinsville.

SHREVEPORT, LA.—Bids are asked until May 12 for constructing a 190-ft. bridge at Wild Lucia; and also one at Howard Bayou, according to reports. P. Youree, Pres. Police Jury.

CENTERVILLE, TENN.—Bids are asked by the county bridge commissioners for constructing three stone piers for the bridge across Duck River, below this place; estimated cost, $5,000.

LOUISVILLE, KY.—The county court has resolved to construct a steel bridge over Floyd's Fork, near Fisherville; estimated cost, $2,500.

SALMONS CITY, KY.—Reports state that the county bridge committee is considering the question of constructing a bridge over Drakes Creek.

CARTHAGE, O.—A petition will be presented to the legislature by the county commissioners for the construction of a bridge over Mill Creek, according to reports.

CINCINNATI, O.—The county commissioners have authorized the construction of a bridge on the Hulick Road, in Colerain township, to cost about $1,860, and have also recommended a bridge to be constructed over Taylor's Creek, between Green and Miami townships; estimated cost, about $2,200. Frank S. Krug, County Engr., Cincinnati.

ELMWOOD, O.—Bids are asked until April 30 for constructing the substructure and approaches of the bridge over Mill Creek, on the Center Hill Road. Eugene L. Lewis, County Audr., Cincinnati.

NEWARK, O.—Bids are asked until April 22 for the purchase of $50,000 in bonds for use in rebuilding the county bridges, recently destroyed by the high water. Wm. Bell, Jr., County Audr.

NEW BALTIMORE, O.—Bids are asked by the county commissioners, Canton, for constructing a temporary bridge over the Great Miami River, at an estimated cost of $5,214.

ST. BERNARD, O.—The Baltimore & Ohio R. R. Co. will construct a new bridge at this place, according to reports. W. T. Manning, Ch. Engr. Bridges, Baltimore.

ST. MARY, O.—Bids are asked until May 3 for constructing two abutments for a bridge over the St. Mary's River at Spring St. in this place; also for a steel deck bridge of one span 89¼ ft. long and 66 ft. wide. G. A. Orphal, County Audr., Wapakoneta, O.

WELLSVILLE, O.—D. A. Davidson, Cy. Clk., informs us that the contract has been let for the construction of a bridge, stated in our last issue as being considered by the Wellsville St. Ry. Co., Robt. Andrews, Supt. He also states that the question of constructing a bridge in Wellsville township has been talked of.

FORT WAYNE, IND.—Reports state that the Nickle Plate R. R. Co. has awarded a contract to Herman Tapp, Fort Wayne, to construct a bridge, to cost about $15,000, over the Pennsylvania R. R. tracks, near this city.

INDIANAPOLIS, IND.—Reports state that a contract was awarded by the county commissioners April 7 for the stonework of four bridges to be constructed this spring.

CHARLOTTE HARBOR, MICH.—It is reported that the county commissioners, Arcadia, are about to construct three bridges on the county road at this place. Judge McLane, County Comr., has received estimates.

OWOSSO, MICH.—Local papers state that this town will borrow $5,000 to construct a bridge across the river.

LANSING, MICH.—This place has voted to construct a bridge over the river at Kalamazoo St.

MANSFIELD, ILL.—We are informed that the following bids were received April 9 for constructing 74-ft. by 16-ft. highway bridge:

Massillon Bridge Co., Massillon, O. (accepted)	$1,514
La Fayette Bridge Co., Lafayette, Ind.	1,610
J. D. Adams & Co.	1,650
Toledo Bridge Co., Toledo, O.	1,650
Thatcher A. Parker	1,670
Carmichael & Andrews	1,680
M. Bayne & Co.	1,695
	1,725

EAU CLARE, WIS.—Reports state that this place is considering the question of issuing $15,000 in bridge bonds.

MEADOW GROVE, NEB.—Bids are asked until May 4 for constructing a 160-ft. bridge, 14 ft. wide, over the Elkhorn River, near this place. E. G. Hellman, County Clk., Madison.

COLORADO SPRINGS, COLO.—The West Side Improvement Association has asked the council to construct a bridge over Monument Creek, to cost about $[illegible], also to extend the Huerfano St. Viaduct.

LIBBY, MONT.—Reports state that the Great Northern Ry. Co. will replace its bridge at this place by a new steel structure.

WILLOW CREEK, MONT.—The commissioners of Gallatin and Madison counties will construct a wooden bridge 300 ft. long and 16 ft. wide over the Jefferson River, at this town, to cost about $4,500.

ASTORIA, ORE.—Bids are asked until April 15 for constructing a draw-bridge and approaches across Young's Bay. F. I. Dunbar, County Clk.—Press reports state that the Oregon R. R. & Navigation Co. will replace five wooden trestles between the Umatilla and Grand Ronde Rivers, with steel structures, at an estimated cost of about $200,000. W. H. Kennedy, Ch. Engr., Portland, Ore.

VANCOUVER, B. C.—The provincial government has received estimates amounting to about $43,000 for the construction of certain bridges.

BUILDINGS.

BOSTON, MASS.—Hortons & Hemenway, of Providence, R. I., have been awarded the contract for the erection of the new railway station in the Back Bay, at about $500,000. It is expected to finish the work by next January.—We are informed that the following were the bids received by the Boston Transit Commission, 20 Beacon St., April 5, for the erection and completion of three stations for the subway; Howard A. Carson, Ch. Engr.:

Woodbury & Leighton (accepted)	$39,123
L. D. Willcutt & Co.	42,083
Connery & Wentworth	45,390
Norcross & Cleveland	52,000
Norcross Bros	53,000

BOSTON, MASS.—Bids are asked until April 30 for constructing complete a cast-iron floor in the engine house at the main drainage station, Dorchester. Consult Engr. E. D. Leavitt, Cambridgeport, Mass.; Supt. of Sta., Benj. W. Wells, Boston.

HARTFORD, CONN.—Plans are asked, until April 25, according to reports, for the new Arsenal school building. H. A. Camp, Chn., 281 Asylum St., may be addressed.

HARTFORD, CONN.—The Pearl St. Congregational Church has voted to appropriate $25,000 additional towards the erection of a new church building at Farmington Ave. and Woodland St. The original appropriation was $100,000. Arch., Ernest Flagg, 15 Broad St., New York.

ALBANY, N. Y.—Bids are asked, until April 19, for furnishing and erecting iron galleries, stairways, railings, etc., at the lower pumping station. Geo. I. Bailey, Supt. Water-Wks., 25 Quackenbush St.

BUFFALO, N. Y.—Bids are asked until May 5 for the electric wiring, steam heating and ventilating, plumbing and drainage work; also for the grading, sidewalks, paving and fencing for the armory building of the 74th Regiment. Chas. Whitney Tillinghast, Adjutant-General, Albany, N. Y.; Lansing & Beierl, Archs., 371 Pearl St., Buffalo.

NEW YORK, N. Y.—Plans have been filed by Peter Wagner, 345 West 58th St., for five 5-story brick dwellings on 102d St., near West End Ave., to cost $100,000. Arch., G. F. Pelham, 503 5th Ave.; by Dodge & James, 11 Cliff St., for a 7-story brick office building at 97 to 101 John St., to cost $200,000. Archs., Clinton & Russell, 32 Nassau St.; by Daily & Carlson, 1742 Amsterdam Ave., for two 7-story brick flat buildings at 106th St. and West End Ave., to cost $175,000. Archs., Neville & Bagge, 217 West 125th St.; by Francis V. N. Burling, for a 7-story brick and stone hotel building at 296 to 302 Central Park West, to cost $240,000. Arch., John R. Hinchman, 336 West End Ave.

OSWEGO, N. Y.—Bids are asked, until May 14, for rebuilding a keeper's dwelling at the Galloo Island Light-Station, as stated in our advertising columns. Maj. W. S. Stanton, U. S. Engr., Oswego.

UTICA, N. Y.—The new Utica Free Library Building was destroyed by fire April 5, causing an estimated loss of $100,000; insurance, $50,000. It is said that the structure will be rebuilt at once.

VICTOR, N. Y.—This village, situated about 18 miles southeast of Rochester, was entirely destroyed by fire April 10, causing a reported loss of about $100,000.

BAYONNE, N. J.—John Larkin, of Jersey City, N. J., is reported as having received the contract for erecting a building for School No. 7, at $73,660.

NEWARK, N. J.—Bids are asked until April 18 for erecting a building to be used as the headquarters of the battalion chief of the Newark fire department, on Bruce St. L. J. Wendell, Cy. Clk.

PRINCETON, N. J.—Henry S. Little, of Trenton, has given $100,000 to Princeton University for the erection of a new dormitory.

PHILADELPHIA, PA.—Plans are being prepared for a new office building for the United Gas Improvement Co. at Broad and Arch Sts., on the site of the old Baptist church. Archs., Wilson Bros., Drexel Bldg.—Geo. W. Stewart, 230 Diamond St., is said to have been awarded the contract for erecting a new school building at 16th and Cayuga Sts., to cost about $60,000.

PITTSBURG, PA.—Rose & Fisher have been awarded the contract for the erection of the new building for Boggs & Buhl, of Allegheny, to cost about $65,000. A building permit for the same has also been granted.

WASHINGTON, PA.—Walter & Slater, of Washington, Pa., have been awarded the contract for erecting a $40,000 opera house on Main St. Arch., W. Kaufman, 605 Smithfield St., Pittsburg, Pa.

WEST CHESTER, PA.—Revised plans are being made, according to reports, for the new insane asylum to be built at this place by the county, at a cost of about $200,000.

WASHINGTON, D. C.—The house of representatives has passed a bill incorporating the Masonic Temple Association of the District of Columbia, the purpose of the association being to erect a masonic temple.

JEANNETTE, LA.—Bids are asked until April 18 for erecting a 2-story brick bank building. Arch., E. D. Frederic, 708 Union St.

INDIANOLA, MISS.—W. P. Gresham, Chancery Clk., informs us that the following bids were received April 4 for the erection of a new court house at Indianola:

W. W. McAfee & Co., Atlanta, Ga.	$19,995
J. J. Harty, Greenville, Miss. (accepted)	18,000
W. J. McGee, Jackson, Miss.	19,000
J. C. Thompson & Bro.	18,990
B. C. Williams, Water Valley, Miss.	19,143
Fred Wagner, Atlanta, Ga.	18,400
Walter Brosher, Henderson, Ky.	19,250
W. A. Andrews, Opelika, Ala.	18,390

CARTHAGE, O.—We are informed that the following bids were received April 5 for improvement to the Longview Hospital: Pres., John Zumstein; Arch., Gustave W. Drach, Cincinnati, O.:

Frank Heller, Cincinnati, O.	$5,079
L. P. Hazen & Co., Cincinnati, O.	5,274
M. Marcus, Cincinnati, O. (accepted)	4,647
S. W. Hornbrook, Hartwell, O.	5,250
G. F. Nieber, Carthage, O.	5,337

BARRINGTON, ILL.—A fire at this place March 31 destroyed the building occupied by A. W. Meyer & Co. and others, causing a reported loss of $40,000.

CHICAGO, ILL.—Bids are asked by the Chicago Public Library, until April 18, for the external fire protection for the building for the Chicago Public Library, on Dearborn St. Secy., W. B. Wickersham.—The following bids were received April 4, for the superstructure of the new post office building; Arch., Henry Ives Cobb, 100 Washington St.:

Manning, Duehan & Co., Washington, D. C.	$2,663,000
Prescott, Buckley & Callahan, Albany, N. Y.	2,594,449
Snead & Co., Louisville, Ky.	2,602,000
J. L. Leach & Son, Chicago	2,437,384
Mellwain, Unkefer & Co., Pittsburg, Pa.	2,189,570
Woodbury & Leighton, Boston, Mass.	2,300,000
Griffith & McDermott, Chicago	2,512,000
Bentley Construction Co., Milwaukee, Wis.	2,343,300
Norcross Bros., Worcester, Mass.	3,203,400
MacArthur Bros., Chicago	2,281,000
P. J. Carlin & Co., Brooklyn, N. Y.	2,449,000
John Pierce, New York	1,987,000
Amberg Granite Co., Chicago	2,150,000
George A. Fuller Co., Chicago	2,760,226
Hennessy & Co., St. Paul, Minn.	2,288,000

CHICAGO, ILL.—Bids are asked by the board of education, 1110 Schiller Bldg., 100 Randolph St., until April 15 for repairs to slate, tin and composite roofs of sundry school buildings.

MADISON, WIS.—Bids are asked by the regents of the University of Wisconsin, until April 19, for erecting an addition to University Hall. Archs., Ferry & Clas, Milwaukee, Wis.

OMAHA, NEB.—Bids are asked until April 19 for the erection of the Iowa Building for the Trans-Mississippi and International Exposition. Secy., F. N. Chase, care of A. E. Shipley, Des Moines, Ia.; Archs., Joselyn & Taylor Co., Cedar Rapids, Ia.

CHEYENNE, WYO.—Bids are asked by James Knox Taylor, Supervising Arch., Washington, D. C., until May 7 for the foundation, etc., of the new U. S. Building in this city.

ANACONDA, MONT.—Bids are asked by the commissioners of Deer Lodge county, until April 19, for the purchase of $100,000 of 5% court house and jail bonds; deposit required, $1,000. M. Martin, County Clk.

HOUSTON, TEX.—Rue & Dunbar, of Houston, are preparing plans for a brick store and office building for Conrad Bering, to cost $16,000; also for additions to the Longfellow School Building, estimated to cost $6,000.

GEORGETOWN, TEX.—Bids are asked until April 15 for the erection of a new university building for the Southwestern University. M. B. Lockett, Ch. Executive Com.

WATER-WORKS.

HALLOWELL, ME.—Bids are asked until May 15 for laying about 26,000 ft. of cast-iron water pipe, setting gates, valves, etc., as described in our advertising columns. We are also informed that this city is still in the market for purchasing gates and hydrants. Further information about these extensions may be found in our issue of Jan. 20. F. E. Beane, Clk. Water Comrs.

BARTLETT, N. H.—This place will construct works this season; it is delayed by decision of land damage cases in U. S. Circuit Court, which will convene in May. Estimated cost, $20,000. Population (1890), 1,247.

NASHUA, N. H.—We are informed that the notice in our issue of last week in regard to improvements to the works of the Pennichuck Water Co. was premature. It has not yet been decided to make any improvements to the works. Supt., H. G. Holden.

LENOX, MASS.—A committee has been appointed to secure an option on the works of the Lenox Water Co. S. J. Newton, Town Clk. and Treas.

BOSTON, MASS.—The Metropolitan Water Board, 3 Mt. Vernon St., advertises that it expects to receive bids at an early date for building a road, a reservoir, laying water pipe, etc., as described in our advertising columns. F. P. Stearns, Ch. Engineer.

LANSINGBURG, N. Y.—The village trustees have been asked to call an election to vote on the question of issuing $60,000 in bonds for improving the works. Further information may be found in our issue of Jan. 20. John Flynn, Pres. Water Comrs.

NEW YORK, N. Y.—Bids are asked until April 21 for furnishing water pipe, hydrants, boxes, special castings, bolts, etc., and also for laying the pipe. Wm. Dalton, Comr. Water Supply, 150 Nassau St.

ST. JOHNSVILLE, N. Y.—Bids are asked by the city clerk until May 20 for the purchase of $12,000 of water bonds, for the completion of the works, according to reports. Supt., Arch. Allen.

PRATTSBURG, N. Y.—Bids are asked until April 22 for constructing works, as described in our advertising columns. Engr., J. F. Witmer, 707 Ellicott Square, Buffalo, N. Y.; Clk., W. F. Wilcox.

MONTCLAIR, N. J.—The Montclair Heights Water & Land Co. has been organized to improve land at Montclair Heights and to furnish a water supply. Pres., H. W. Page; Secy., Alfred Simpson.

PERTH AMBOY, N. J.—The following bids were received by the Aldermen April 4 for furnishing a 4,000,000-gallon pump at the Runyon works: The Geo. F. Blake Mfg. Co., $15,000; H. R. Worthington, $10,950, $13,365 and $15,765; Dean Bros. Steam Pump Works, $15,200; M. T. Davidson, $11,000; A. J. L. Loretz & Sons, $7,000, $11,000 and $12,000; Laidlaw-Dunn-Gordon Co., $15,750; the Snow Steam Pump Works, $15,000; the Barr Pumping Engine Co., $13,990. The opening of these bids made the fourth attempt to secure a new pump at Runyon within two years, and it is feared that the previous failures to award the contract will be repeated. There is a difference of opinion as to the kind of pump needed. Wm. King, Jr., Cy. Clk.

SALEM, N. J.—C. W. Casper, Supt. Works, writes us that Churchill Hungerford, 116 W. 69th St., New York, is preparing plans for a filtration plant, to cost about $4,700. It is probable that work will be begun in May or June.

SEASIDE PARK, N. J.—The committee has been directed to prepare plans for works. Mayor, F. S. Harris; Clk., Dr. J. B. Wood; Engr., H. S. Haines.

BRADFORD, PA.—Plans are being considered by the commissioners for a new reservoir of 100,000,000 gallons capacity. The site has not yet been decided upon. Estimated cost, $35,000. Supt., S. D. Heffner.

GLEN CAMPBELL, PA.—C. W. McCrady, Secy. Council, writes us that this place has no water-works, but is much in need of such an improvement.

LANCASTER, PA.—Bids are asked by the city clerk until April 28 for furnishing the water department with castings, branches, covers, etc., according to reports.

LEBANON, PA.—Bids are asked until May 2 for furnishing and laying water pipe, setting hydrants, valves, etc., as described in our advertising columns. J. D. Kerr, Secy. Comrs., 729 Cumberland Ave.

MILLHALL, PA.—The council has granted a franchise to the Millhall Water Co. for works in this place. The company will be incorporated with a capital stock of $25,000.

MILLVILLE, PA.—The Millville Water Co. has been incorporated, with a capital stock of $1,000, of which $100 is paid in, by William Masters, Josiah Heacock and John Eves, to supply Millville, Columbia county.

MEADVILLE, PA.—This city voted April 7 to issue $153,000 in bonds for the purchase of the works of the Meadville Water Co. W. A. Doane, Cy. Engr.

MIFFLINBURG, PA.—We are informed that the works under construction will be a gravity system, to cost about $26,315. There will be a 100,000-gallon steel tank. The borough has bought of M. J. Drummond & Co., 199 Broadway, New York, 830 tons of pipe and 10 tons of special castings, and from J. O. Frosts Sons' Mfg. Co., Towanda, Pa., the hydrants. The contract for building the works was let to Chadley Bros. & Co., Beaver Falls, Pa., on March 11. The work will be completed July 1. Des. Engr., Alex. Potter, 137 Broadway, New York; Res. Engr., Wm. Mackintosh.

PITTSBURG, PA.—Edw. M. Bigelow, Dir. Dept. Pub. Wks., has awarded the following contracts for water department supplies, amounting to $200,000: Cast-iron water pipe and special castings, National Foundry & Pipe Works, Scottsdale, Pa.; pig lead, Standard Mfg. Co., Pittsburg; fire hydrants, Michigan Brass & Iron Works, Detroit, Mich.; gate valves, Bingham & Taylor; wooden gate boxes, J. D. Hill.

ROUZERVILLE, PA.—The Rouzerville Water Co. was incorporated April 12, with a capital stock of $2,000, of which $300 is paid in. Treas., Alphey Stenhey, Rouzerville; incorporators, B. F. Hartman, W. H. Lease and others.

LAUREL, MD.—It is stated that arrangements are being made with H. M. Seiple, of Philadelphia, for the construction of the works, to cost about $7,000. Mayor Phelps may be addressed.

TACOMA PARK, D. C.—The council has asked the citizens to subscribe for water; the construction of the works having been approved by the governor. The committee will report April 19, at which time definite action will probably be taken. Estimated cost, $22,000. Mayor S. S. Shedd; Chn. Com. and Town Clk., Geo. A. Warren.

BOONSBORO, MD.—We are informed that H. G. Frederick, Millersburg, Pa., Pres. Boonsboro Water Co., has just closed a contract with the town to construct works. It is not known what will be required. Work will probably begin May 20. Population, 1,000. Secy., Geo. A. Davis.

CHESTERTOWN, MD.—The governor has signed the bill authorizing this place to build municipal works; the present works being owned by the Chestertown Water Co.

HYATTSVILLE, MD.—This place will vote May 9 on the question of issuing $25,000 in bonds for works and the commencement of the proposed sewerage system. Maj. M. V. Tierney may be addressed.

OAKLAND, MD.—J. M. Davis, Secy. Mountain Lake Association, writes us that L. T. Yoder, Pittsburg, Pa., has been awarded the contract for works for the association. A stand-pipe of 30,000 gallons capacity will be built on a masonry foundation. The supply will be secured from Crystal Spring.

WYTHEVILLE, VA.—It is stated that an election will be held April 26 to vote on the question of issuing bonds for extending the works, built in 1889, at a cost of $25,462. J. G. Brown may give information.

FLORENCE, S. C.—T. W. Jones, Chn. Com., writes us that the city will want about three miles of 6 and 8-in. cast-iron water pipe, a steel tank of 100,000 gallons capacity, tower 100 ft. high and an air-lift. Population, 6,000.

WASHINGTON, GA.—R. H. Woolen, Mayor, writes us that a stock company, composed of local citizens, proposes to build works at a cost of $5,000. The company will probably be ready to ask for bids for the construction in about 30 days. H. D. Arnold, Secy., Washington Water-Works.

HOLLY SPRINGS, MISS.—Guild & Co., Chattanooga, Tenn., have been awarded the contract for building works and a light plant, advertised in Engineering News, at $35,000.

MONTEVALLO, ALA.—The question of building works is being considered, according to reports.

WILLIAMSBURG, KY.—The question of building works is being considered, according to reports.

BOWLING GREEN, O.—This place voted April 4 against purchasing the works of the Bowling Green Water Co. for $100,000. Mayor, A. R. Campbell.

CLEVELAND, O.—Bids are asked until May 9 for the purchase of $300,000 in 4% water bonds. H. L. Rossiter, Cy. Audr.

COLUMBUS, O.—We are informed that this city voted April 4 by an excess of 269 of the required two-thirds to issue $175,000 in bonds for a dam in the Scioto River for an increased water supply. Julian Griggs, Ch. Engr. Dept. Pub. Improvements.

FREMONT, O.—Jos. Schwartz, Secy. Water Trustees, informs us that the proposition to issue $10,000 in bonds for improving the works was defeated at the election April 4; not securing the required majority.

McCONNELSVILLE, O.—The council is reported to have directed J. W. McElhiney, City Attorney, to prepare a bill asking the legislature to grant this place authority to issue $20,000 in bonds for works.

SANDUSKY, O.—Bids are asked until April 15 for furnishing f. o. b., Sandusky, 4,500 ft. of 8-in. cast-iron water pipe. F. W. Bauer, Secy. and Supt. Water Bd.

SPRINGFIELD, O.—The Addyston Pipe & Steel Co., Cincinnati, has been awarded the contract for furnishing about 300 tons of water pipe. The Bourbon Copper & Brass Works, Cincinnati, has the contract for furnishing such valves as may be required during the year.

YOUNGSTOWN, O.—Bids are asked until April 19 for furnishing f. o. b. cars, Youngstown, 500 tons of 6 to 12-in. cast-iron water pipe and about 10 tons of special castings. W. S. Hamilton, Supt. Water-Works.

NEW CASTLE, IND.—E. M. Carr, Manager, writes us that it is proposed to add a 3,000,000-gallon compound condensing pumping engine to the works this spring. Arrangements are being made for specifications.

CHARLEVOIX, MICH.—We are informed that no contracts have been let for constructing the proposed filter gallery; the city will probably do the work. H. S. Harsha and A. D. Cruickshank are on the committee.

BLOOMINGTON, ILL.—C. L. Hills, Secy. Bd. Local Improvements, writes us that some water mains, brick paving, etc., will be laid this season; the date of awarding contracts not yet decided upon.

EDWARDSVILLE, ILL.—Bids are asked until April 25 for constructing works, as stated in our advertising columns. Estimated cost, $75,000. Further information may be found in our issue of March 31. J. A. Holmboe, Engr., Columbia Bldg., Louisville, Ky.; W. F. A. Hadley, Chn. Com.

OSHKOSH, WIS.—The proposition to own the works was defeated April 5 by a majority of 31. A majority of one of the council, it is stated by a local paper, is for municipal ownership. A. B. Ideson, Mayor.

SHELL ROCK, IA.—This place voted last week to issue $5,000 in bonds for works, according to reports. H. W. McGregor, Recdr.

NEW SHARON, IA.—This place is said to have voted March 28 in favor of issuing $8,240 in bonds for works.

NEW VIENNA, IA.—This place has voted to build works. B. W. Schulte, Clk., writes us that no plans have yet been adopted. Population, 300. Mayor, Jacob Keiper.

DUBUQUE, IA.—L. M. Langstaff, Cy. Recdr., writes us that the people voted April 4 by a large majority to purchase the works of the Dubuque Water Co. This vote was, however, only to get an expression from the people. It now rests with the new council to proceed under the law, which will take several months, and then again submit the question to the people.

OTTUMWA, IA.—Local papers state that the City Water Supply Co. will build a new reservoir and extend the mains in a number of streets. Supt., Abram Wing.

VALLEY JUNCTION, IA.—The council is reported to have a majority in favor of building works and a light plant.

ODEBOLT, IA.—A. E. Bumquist, Town Clk., informs us that the following bids were received April 5 for constructing a steel water tower, as advertised in Engineering News:

F. E. Colby, Onawa, Ia.	$3,249
Fremont Turner, Des Moines, Ia.	2,924
U. S. Wind Engine & Pump Co., Batavia, Ill.	3,200
Challenge W. Mill & Feed Mill Co., Batavia, Ill.	3,059
Crellin & Lovell, Des Moines, Ia.	3,017
Jackson & Moss, Des Moines, Ia.	3,105
Chicago Bridge & Iron Co., Chicago, Ill.	4,000

DULUTH, MINN.—Bids are asked until April 18 for furnishing copper wire screws for the intake well at the pumping station at Lakewood. R. Murchison, Clk. Bd. Pub. Wks.

DULUTH, MINN.—Local papers state that the board of public works is preparing to advertise for the straight pipe and the cast-iron fittings for connecting the supplementary works with the old water-works. The report of the expenditures for all accounts for the new water-works shows a grand total of $649,766 expended to date upon pump house, intake, pipes and reservoir, and upon the pumping engines that a total amount of $111,859 has been expended.

MINNEAPOLIS, MINN.—The city engineer has been directed to prepare specifications for a new 10,000,000-gallon pump at the north side station.

WEST CONCORD, MINN.—This place will probably soon vote on the question of constructing works.

MONTICELLO, ARK.—This place voted April 6 to construct works, according to reports. Population (1890), 1,285. Mayor, R. L. Hyatt; Recdr., L. E. Hoke.

PRESCOTT, ARK.—G. Jaeger, Rich Hill, Mo., is reported to have begun the construction of the works and light plant for this place, to cost $32,000.

FARGO, N. DAK.—We are informed that C. H. Porritt, Fargo, has been awarded the contract for furnishing and setting a Worthington 3,000,000-gallon pump, two 80-HP. boilers, and for building a boiler house, at $7,560. Sam. F. Crabbe, Cy. Engr.

FORT COLLINS, COLO.—The Coal Creek Reservoir Co. has been incorporated to build reservoirs of a combined capacity of about 200,000,000 gallons for irrigating and domestic purposes. Joel Clark, Samuel Pye and Wm. E. Parker are interested.

GRAND JUNCTION, COLO.—The town, at the election April 5, voted to purchase the works of the Grand Junction Water Co. for $55,000. It is stated that the works will be improved.

PUEBLO, COLO.—Local papers state that E. W. Hathaway, Cy. Engr., Pueblo, and John W. Hill, Glenn Bldg., Cincinnati, O., have been engaged by the trustees to prepare plans for an increased water supply.

STERLING, COLO.—C. L. Goodwin, Town Clk., writes us that at the election April 5 this place voted against issuing bonds for works.

PLEASANTON, CAL.—A preliminary election will be held about April 25 to vote on the question of issuing bonds for the proposed works and light plant. Population, 1,200. J. H. Neal, Town Clk.

REDLANDS, CAL.—The Redlands, Lugonia & Crafton Domestic Water Co. has awarded a contract to the Los Angeles Sewer Pipe Association for furnishing and laying about 11 miles of 18 and 20-in. water pipe from the Mentone district to Lugonia Ave.; estimated cost, $40,000. Supt., H. W. Allen.

TUCSON, ARIZ.—An election will be held May 5 to vote on the question of issuing $100,000 in bonds for municipal works and a sewerage system. L. D. Chilson, Cy. Engr.

MONTREAL, QUE.—Bids are asked until April 19 for furnishing the water-works department with brick, cement, lime, etc. J. O. A. Laforest, Supt.

PANAMA, COLOMBIA, SO. AM.—Consul-General Gudgen states that the contract entered into by Emile Lebon and Belisaire Marenovich to furnish water to this city, Panama, per contract, as set forth by Consul-General Vifquain, and reported in our issue Sept. 30, has been forfeited, the contractors not having begun active work by March 1. It is understood that the authorities will undertake to contract with other parties to furnish the water.

IRRIGATION.

AZTEC, N. MEX.—Reports state that the contract for the canals of the Animas Land & River Irrigation Co., operating in San Juan county, has been let and by April 10 work will commence on the 35-mile system of canals which will be used to irrigate that section.

VINELAND, CAL.—Bids will be asked by the board of directors of the Vineland irrigation district for installing a pumping plant, pipe line and two wells 300 ft. deep; estimated cost about $20,000, according to reports.

NEW COMPANIES.—Layhodie Irrigating Co., West Side, Cal.; $12,000; F. W. Tantan, E. T. Pettit, Josephine Tantan, N. A. Sanders, S. B. Sanders, West Side, Santa Clara county.

Kankakee Reclamation Co., Shelby, Ind.; to irrigate land along the Kankakee River.

Conkey Park Land Co., Hammond, Ind.; $20,000.

Loma Vista Canal Co., Toyahville, Tex.; to promote irrigation; $5,000; Thomas Jaime, M. Jaime, A. S. Lyles.

Port Arthur Rice & Irrigation Co., Port Arthur, Tex.; $100,000; to construct and maintain reservoirs, canals, etc., and irrigation; E. S. Mosher, J. M. Mason, R. A. Greer, F. M. Hammon, C. A. Braley.

Posy Valley Irrigation Ditch Co., Ltd., Salem, Ore.; $900; J. R. Fulp, J. W. Bloom, David Clark, R. H. Boyles, H. H. Grubb.

West Field Canal & Irrigation Co., Beaver, Utah; $6,890; to irrigate 689 acres of land owned by the incorporators with water from the Beaver River; M. L. Shepherd, Walter Tanner, David M. Muir, David Law.

Pine Island Irrigation Co., Beaumont, Tex.; $25,000; to construct the canal from a point on Pine Island bayou to Taylor bayou; I. H. Van Warmer, Catharine Stengel and Frank Cooley.

McMonigal Ditch Co., Red Lodge, Mont.; Thomas Redding, John McMonagal, Harry Duffield, Joliet.

West Field Canal & Irrigation Co., Beaver City, Utah; to irrigate 689 acres of land and to construct ditches canals and reservoirs; $6,890; W. Tanner, R. R. Tanner, Mary Campbell, W. M. Snow, Oliver Ashworth, Greenville; M. L. Shepard, Pres.; Walter Tanner, Vice-Pres.

Riverside Irrigation Co., Jennings, La.; $100,000 paid in; to irrigate about 4,000 acres for rice culture; P. B. Habet, Fond du Lac, Wis.; J. P. Haber, D. C. Richie, and G. W. Cook, Acadia parish; C. A. McCoy, Lake Charles, and J. Rosholt, Trail county, N. Dak.

SEWERAGE.

BOSTON, MASS.—Bids are asked until April 14 for building 2,130 ft. of pipe sewer in Summer St., Ward 13. Benj. W. Wells, Supt. Sts.

BOSTON, MASS.—Bids are asked until April 30 for constructing 1,550 ft. of 15-in. pipe sewer in Malden; average cut, 10.3 ft. Wm. M. Brown, Jr., Ch. Engr. Metropolitan Water Bd., 3 Mount Vernon St.

SPRINGFIELD, MASS.—We are informed that the council is considering an annual appropriation of about $140,000 for sewer work and about $60,000 for paving. Chas. M. Slocum, Cy. Engr.

SOMERVILLE, MASS.—E. W. Bailey, Cy. Engr., writes us that about $100,000 will be expended during the year for sewers; the greater part of this amount for stone relief drains and sewers in the low lands where the old drainage system has become inadequate to dispose of the rainfall in times of storms.

NEW HAVEN, CONN.—Bids are asked until April 4 for constructing sewers in eight streets. C. W. Kelly, Cy. Engr.

BUFFALO, N. Y.—Bids are asked until April 27 for constructing 36-in. brick to 6-in. pipe sewers in Hickory St. R. G. Parsons, Secy. Dept. Pub. Wks.

MOUNT VERNON, N. Y.—Bids are asked by the city clerk until April 26 for constructing 12-in. pipe sewers in a number of streets.

ONEIDA, N. Y.—Bids are asked until April 20 for constructing 6,600 ft. of pipe sewers, as advertised in Engineering News of March 31. J. T. Wallace, Pres. Comrs., Stanwix Engineering Co., Rome, N. Y., Engrs.

ROME, N. Y.—Bids are asked until April 18 for the purchase of $7,000 of 4% sewer bonds. The act authorizes $240,000 to be issued for the system now being built; of this amount $180,000 have been issued. J. H. Carroll, Chamberlain.

SAG HARBOR (L. I.), N. Y.—We are informed that this place voted April 4 against issuing bonds for a system.

NEWARK, N. J.—Bids are asked until April 14 for constructing about 2,000 ft. of 18 to 12-in. pipe sewers in two streets. J. C. Mundy, Gen. Supt. of Works.

ERIE, PA.—Bids are asked until April 14 for constructing 12-in. pipe sewers in two streets. B. E. Briggs, Cy. Engr.—Our correspondent informs us that there will be considerable pipe sewer work during the next month, but no long or important pieces. Very little paving is in contemplation.

SCRANTON, PA.—Bids are asked until April 21 for constructing sewers in Monsey St.; check, $300. M. T. Lavelle, Cy. Clk.

POTTSVILLE, PA.—Bids are asked by the city clerk until April 19 for constructing pipe sewers, etc.

TAKOMA PARK, D. C.—The governor has signed the bill authorizing this place to construct a system, at a cost of $8,000. It is probable that some definite action will be taken at the council meeting on April 19. S. Shedd, Mayor; Geo. A. Warren, Chn. Com., Town Clk. and Treas.

WASHINGTON, D. C.—Bids are asked by the district commissioners, until April 30, for constructing sewers, as stated in our advertising columns.

MOBILE, ALA.—Geo. G. Earl, 1307 Valence St., New Orleans, La., has submitted a report and plans for the proposed system; estimated cost, $200,976.

CAMBRIDGE, O.—We are informed that at the election April 4 this place voted almost unanimously to issue $9,000 in bonds for a trunk sewer. Bids for the work will be asked in a few days. O. M. Hoge, Cy. Engr.

CANTON, O.—Bids are asked until April 23 for furnishing such sewer and steel castings as may be required during the year. L. E. Chapin, Cy. Engr.

CLEVELAND, O.—Bids are asked until April 29 for constructing a portion of a main sewer in Lake Ave.; check, $6,000. Bids for other sewers are asked until April 14, 21 and 28, as stated in our issue of last week. Geo. R. Warden, Dir. Pub. Wks.

EAST CLEVELAND, O.—Bids are asked until May 5 for the purchase of $100,000 of 4% sewer bonds. E. D. Burton, Mayor.

DAYTON, O.—We are informed that the city has been granted the right to issue $50,000 in bonds for storm water sewers. F. M. Turner, Cy. Engr.

WINTON PLACE, O.—At the election April 4 this place voted against issuing $40,000 in bonds for a system. B. C. Vanduzen, Mayor.

INDIANAPOLIS, IND.—Bids are asked until April 18 for constructing sewers in a number of streets. M. A. Downing, Chn. Bd. Pub. Wks.

VINCENNES, IND.—We are informed that plans for a system prepared by the Robt. E. McMath Surveying Co., St. Louis, Mo., have been adopted. The city has no funds with which to carry on the work. Jos. L. Ener, Chas. O. Donnell and Jos. Kieffer are on the committee. Jere. Herskey, Cy. Engr.

VICKSBURG, MICH.—The Vicksburg Sewer Co. has been granted a franchise to construct and operate a system. The company has let the contract for building the system to the Kalamazoo Supply & Construction Co., at $1,940. Engr., E. W. Buckley; Pres., Dr. W. W. Scott; Secy, Dr. F. S. Coller.

BLOOMINGTON, ILL.—C. L. Hills, Secy. Bd. Local Improvements, writes us that some pipe sewers, water mains, etc., will be constructed this season.

DECATUR, ILL.—The board of local improvements has voted to construct a brick sewer in Oakland Ave., at a cost of $14,178.

CEDAR RAPIDS, IA.—Bids will probably soon be asked for building a brick sewer 380 ft. long in Vinton Ditch; estimated cost, about $7,000. E. P. Boynton, Cy. Engr.

DUBUQUE, IA.—The city engineer is preparing plans for a sewer in Alma St.

CHAMBERLAIN, S. DAK.—John Flinn, Supt., writes us that the following bids were received April 5 for constructing sewers and water-works at the Indian Agency:

Crellin & Lovell, Des Moines, Ia.	$4,945
*John W. Warnshuis, Chamberlain	5,000
J. M. Johnston, Chamberlain (1)	2,300
Henry C. Mussman, Chamberlain (2)	595

*Awarded contract; (1) for artesian well; (2) for sewer only.

TUCSON, ARIZ.—An election will be held May 5 to vote on the question of issuing $100,000 in bonds for a system and water-works.

PETULUMA, CAL.—N. S. Frost, Cy. Engr., writes us that it is proposed to construct 5,000 ft. of 10-in. pipe sewer, at a cost of 50 cts. a ft. It will be about three months before anything can be done. Chris. Jacobsen, Chn. Com.

SAN DIEGO, CAL.—Plans are being prepared for extending the system.

SAN FRANCISCO, CAL.—Williams, Belser & Co. have been awarded the contract to build the first section of the 6 × 6-ft. brick sewer in the Sunset District, at $15,000.

GARBAGE DISPOSAL—STREET CLEANING

GLOUCESTER, MASS.—The question of building a crematory, to cost about $11,500, is being considered.

NEWBURG, N. Y.—Bids are asked until April 25 for collecting and removing the garbage and refuse for a term of one year, from May 1. D. J. Contant, Cy Clk.

TROY, N. Y.—Bids are asked by the contracting board until April 20 for disposing of the ashes, garbage and refuse for a term of five years.

JERSEY CITY, N. J.—The McKay Cremator Construction Co. has been incorporated with a capital stock of $900,000 by Kevin W. Barry, of Bayonne, N. J.; Geo. A. Treacy and John Farley, New York.

READING, PA.—The board of public works is stated as about to purchase several street sweepers.

ATLANTA, GA.—The council is considering a resolution of Committeeman Dorsey asking that $10,000 of the city funds be used for building a new crematory.

TOLEDO, O.—Mayor S. M. Jones has vetoed the resolution passed by the council recently awarding a 5-year garbage disposal contract to Daniel J. O'Hara.

STREETS AND ROADS.

EXETER, N. H.—This town has appropriated $5,000 to improve and repair macadam roads; it will also purchase a steam roller.

BOSTON, MASS.—The Metropolitan Water Board states in our advertising columns that it expects to receive bids at an early date for building a road at the Wachusett Reservoir, Clinton. F. P. Stearns, Ch. Engr., 3 Mount Vernon St., Boston.—Bids are asked until April 14 for macadamizing about 730 lin. ft. of highway. Benj. W. Wells, Supt. Sts.

CAMBRIDGE, MASS.—A proposition has been presented to the county commissioners for the construction of a macadam road on the east side of the water basin, one mile in length; estimated cost, about $6,000. L. M. Hastings, Cy. Engr.

MALDEN, MASS.—Bids are asked until April 21 for furnishing granite paving blocks, flagstones and edgestones during 1898. Geo. W. Stiles, Frank H. Carlisle, St. Comrs.

REVERE, MASS.—The Boston State Highway Commission, Boston, awarded a contract to T. Stewart & Son, Newton, April 7, for constructing 1,400 lin. ft. of macadam road, at $13,496.

HOLBROOK, MASS.—A contract was awarded to J. S. Lane & Son, Springfield, April 7, at $6,518, for macadamizing in Holbrook and Weymouth.

PALMER, MASS.—An appropriation of $2,000 has been voted for a macadam road.

NEW HAVEN, CONN.—Bids are asked until April 14 for furnishing about 4,000 tons of crushed stone and for laying concrete walks on the approaches to the bridge over the railway at Chapel St. C. W. Kelly, Cy. Engr.

BUFFALO, N. Y.—Bids are asked until April 20 for macadamizing in Gallatin Ave. and paving in Grosvenor St. and until April 27 for paving in Macauley, Chicago and Michigan Sts. R. G. Parsons, Secy. Bd. Pub. Wks.

OSWEGO, N. Y.—Bids are asked until April 21 for about 34,053 sq. yds. of asphalt paving, as stated in our advertising columns. E. A. Cooke, Cy. Clk.

POCANTICO HILLS, N. Y.—Reports state that John D. Rockefeller, New York, will construct macadam roads throughout his estate, to cost about $175,000.

ROCHESTER, N. Y.—A contract has been awarded to Whitmore, Rauber & Vicinus, at $21,8[illegible] for paving South St. Paul St., from Court St. to the [illegible] Canal.

BOLTON, N. Y.—It is proposed to construct a road from Bolton to Lake George.

SING SING, N. Y.—Spring St. is to be paved with asphalt, from Main St. to Waller Ave.; estimated cost, $7,000.

JERSEY CITY, N. J.—Bids are asked by the board of street and water commissioners, until April [illegible] for the repairing and maintenance of portions of Communipaw Ave. and for improving portions of Jefferson and [illegible]mont Aves. Clk., Wm. A. Tolson.

MERCHANTVILLE, N. J.—The question of constructing stone roads, at a cost of about $35,000, is being considered.

NEWARK, N. J.—The board of street and water commissioners has authorized the paving of portions of six streets with asphalt and three streets with granite blocks.

BRADFORD, PA.—Bids are asked until April [illegible] for brick paving in Mechanic St., between Corydon and [illegible] Sts.; surety $200. Jas. A. Lindsey, Cy. Clk.

ERIE, PA.—Bids are asked until May 14 for repairing stone pavements and laying crosswalks, [illegible], etc. Benj. E. Briggs, Cy. Engr.

LEECHBURG, PA.—Bids are asked until April [illegible] for about 5,500 sq. yds. of brick paving on Main [illegible] lin. ft. of curbing, as stated in our advertising [illegible]. J. McMains, Secy. Council; Wilson & Smith, [illegible] burg.

MAHANOY CITY, PA.—Bids are asked until April 20 for paving from 35,000 to 40,000 sq. yds. with brick, as stated in our advertising columns. John M. Yeiter, Chn. Com.

FREEPORT, PA.—The council has passed an ordinance to grade a portion of Fifth St., for which the contract will be let this spring, according to reports.

GREENSBURG, PA.—A petition has been presented to the council for paving, grading and curbing in Maple Ave.

McKEES ROCKS, PA.—Bids were received April 12 for about 10,000 sq. yds. of asphalt and brick paving, and 9,000 lin. ft. of curbing. R. F. Hunter, Borough Engr. Jacob Herbst, Chn. St. Com.

PITTSBURG, PA.—Bids are asked until April 18 for paving portions of 62 streets and alleys. Edward M. Bigelow, Dir. Bd. Pub. Wks.

MANCHESTER, VA.—Reports state that the street committee is negotiating with the Austin & Western Co., Chicago, Ill., for the purchase of a stone crusher.

RICHMOND, VA.—The council has adopted a resolution to pave Broad St. with brick between 10th and 11th Sts.; estimated cost, $7,400; also an appropriation for about $6,596 for paving, curbing, etc., in portions of other streets.

WESTON, W. VA.—Bids are asked until May 1 for certain brick paving, estimated to cost about $20,000, according to reports. F. G. Orr, Chn. Com.

ATLANTA, GA.—A petition has been presented to the council for an appropriation of $10,000 to improve Edgewood Ave.—A hearing will be given by the council April 18 to decide upon the proposed paving in Washington St. with Williams paving blocks. C. A. Collier, Mayor; W. D. Greene, Clk.

GREEN COVE SPRINGS, FLA.—The county has appropriated $5,000 to begin the construction of the shell road from this place to Jacksonville.

BLOUNTVILLE, TENN.—The county court has appropriated $5,000 for road construction, according to reports.

ALLIANCE, O.—Bids are about to be asked by the council for asphalt block paving in Main St. O. W. Plouts, Cy. Engr.; J. H. McConnell, Cy. Clk.

CAMBRIDGE, O.—O. M. Hoge, Cy. Engr., writes us that this city has voted to issue $9,000 in bonds for paving in Wheeling Ave. Bids are to be asked in a few days.

MANSFIELD, O.—M. A. Munn, Cy. Engr., has reported to the council on street improvements aggregating a cost of $44,789.

PIQUA, O.—Bids are asked until April 20 for constructing curbs and gutters. H. E. Whitlock, Cy. Engr.; Seth M. Culloch, Cy. Clk.

FORT WAYNE, IND.—Bids are asked by the board of public works, until April 25, for 42,000 sq. yds. sheet asphalt paving on six streets in this city, upon a 5 and 6-in. concrete foundation, with a 1 and 1½-in. binder and a wearing surface 1½ and 2 ins. in thickness. F. M. Randel, Cy. Engr.

SCOTTSBURG, IND.—It has been voted to authorize the county commissioners to construct about 26 miles of macadam and gravel roads at an estimated cost of $38,000.

INDIANAPOLIS, IND.—Bids are asked until April 18 for paving portions of Washington St. and New Jersey St. with asphalt. M. A. Downing, Chn. Bd. Pub. Wks.—The board of public works has passed a resolution of intention to pave a portion of Noble St. with creosoted wooden blocks.

MUNCIE, IND.—Bids are asked for grading and surfacing Liberty St., from Eighth St. to Ninth St. F. A. Elrod, Cy. Clk.

WABASH, IND.—Bids are asked until April 25 for constructing about 40,000 sq. yds. of cement sidewalks. Robert P. Woods, Cy. Engr.

DETROIT, MICH.—Bids are asked by the board of public works, until April 15, for paving sundry streets and alleys. Pres., D. W. H. Moreland.

GALESBURG, ILL.—Bids are asked by the board of public improvements, until April 18, for constructing a single-course brick pavement in a part of Sumner St., requiring about 4,300 sq. yds. of paving, and 2,500 lin. ft. of curbing. Pres., Forrest F. Cooke.

ROCK ISLAND, ILL.—W. A. Darling, Cy. Engr., writes us that the city attorney has referred the question of regulating the taxation for the construction of 11 blocks of brick paving to the county court. The council is considering an ordinance for three more blocks of brick paving.

MILWAUKEE, WIS.—Reports state that the board of public works will ask for an issue of $18,000 in bonds for asphalt and brick paving.

OTTUMWA, IA.—It has been decided by the council to pave West Second St. and East Court St. with brick this spring; also an effort will be made to pave North Fifth St. and Second St., according to reports.

MINNEAPOLIS, MINN.—The Alcatraz Co., San Francisco, Cal., has been awarded a contract for constructing 30,000 sq. yds. of asphalt pavement; to cost about $69,000.

MINNEAPOLIS, MINN.—Bids are asked until April 29 for about 20,000 sq. yds. of asphalt paving on 6-in. concrete foundation. The bids received for this work April 8 were rejected. L. A. Lydiard, Cy. Clk.

ST. PAUL, MINN.—The board of public works has rejected the bids received March 31 for asphalt paving in portions of five streets and will again ask for bids.

OMAHA, NEB.—Bids are asked until April 22 for brick, asphalt or macadam paving in 32d Ave. Andrew Rosewater, Chn.; Wm. Coburn, Secy. Bd. Pub. Wks.

KANSAS CITY, MO.—M. Mense has been awarded a contract, at $4,000, to pave a portion of 20th St., and the Boyd Paving Co. has been awarded a contract at $3,000 for paving in Smart Ave.

ST. JOSEPH, MO.—Helsley Bros., have been awarded a contract by the county commissioners, at $13,050, to macadamize and sewer the Asylum Road, a distance of about 3,200 ft. County Surveyor Steinacker.

ST. LOUIS, MO.—Bids are asked until April 22 for reconstructing a portion of the Lindell Boulevard. Robt. E. McMath, Pres. Bd. Pub. Improvements.

PUEBLO, COLO.—Bids are asked until April 18 for grading in First, Second, Third and Greenwood Sts. Oscar Q. M'Neil, Cy. Clk.

SEATTLE, WASH.—The board of public works has awarded a contract to M. Dow & Co., at $15,439, for improving Third Ave., Fourth Ave. and Union St.

PETALUMA, CAL.—N. S. Frost, Cy. Engr., writes us that the board of trustees will ask for bids in about six weeks for about 24,500 sq. yds. of macadamizing; estimated cost, $11,400. The committee is also considering the macadamizing of 3,000 lin. ft. Chris. Jacobson, M. Walsh and A. Careghino, St. Com.

SAN FRANCISCO, CAL.—The board of supervisors has awarded a contract to the City Street Improvement Co., at $15,000, for paving Market St., from 2d to 5th st.

HAMILTON, ONT.—Bids are asked until April 19 for furnishing a 12-ton and a 15-ton steam road roller. P. Beasley, Cy. Clk.

MANUFACTURING PLANTS

OLD TOWN, ME.—Plans and specifications are said to have been prepared for a 3-story woolen mill, 175 × 58 ft., to be erected in this town. The proposed equipment will cost about $35,000.

MIDDLEBURY, VT.—The Brandon Italian Marble Co., whose works at Brandon were recently destroyed by fire, will erect its new shops in this village instead of at Brandon.

NEWBURYPORT, MASS.—The principal buildings occupied by the Newburyport Car Co. were damaged by fire April 9, causing a reported loss of $30,000; fully insured.

GLENS FALLS, N. Y.—It is reported that plans have been perfected for the new factory building to be erected at this place for the E. P. Perser Collar Co.

NEW YORK, N. Y.—A fire in this city, April 9, destroyed the 5-story brick building at 119 and 121 Ave. D, occupied by William Kleeman, manufacturer of store fixtures, causing a reported loss of $40,000.

CHESTER, PA.—The Chester Steel Castings Co., of Chester, informs us that it expects to erect a 20-ton open-hearth steel furnace, and also a 75-ft. addition to its foundry.

IRWIN, PA.—The plant of the Pennsylvania Plate Glass Co., in North Irwin, was completely destroyed by fire April 12, causing a reported loss of $750,000; insurance, $450,000.

MIDDLETOWN, PA.—M. P. McNeal, of Middletown, is said to have received the contract for erecting a large hosiery mill in this town for R. H. Romberger. Arch., E. F. Bertolette, Heed Bldg., Philadelphia, Pa.

PITTSBURG, PA.—A fire in this city, April 6, destroyed the foundry and machine works of Phillips & McLaren, on Smallman St., between 23d and 24th Sts., causing a reported loss of $50,000; insurance, $22,000.

SHAMOKIN, PA.—Reports state that the Vega Silk Co., of Paterson, N. J., has agreed to erect a 4-story brick silk mill at this place, to cost about $70,000. About 200 silk looms, with a steam power plant, electric lights, etc., will be installed.

READING, PA.—A permit has been issued to the Carpenter Steel Co. for the erection of a one-story iron building, 48 × 64 ft., on River Road, between Exeter and Bern Sts. Contractor, Josiah S. Koch.

JACK'S MILL, VA.—John T. Prior, of Jack's Mill, informs us that work will not begin for some time upon the new mill which it is proposed to erect at this place. Plans have been decided upon.

GREENSBORO, N. C.—W. J. Teague, Secy. and Treas. Eagle Foundry Co., of Greensboro, informs us that the contract has been let for its new brick foundry, 110 × 36 ft., and shop and office building, 129 × 31 ft., estimated to cost $1,500. Bids are now being received for a 20 or 25-HP. engine, and a 25 or 30-HP. boiler; also for lathes, drill press, elevators and shafting; estimated to cost $2,000.

DES MOINES, IA.—C. E. Eastman, of Eastman & Patet, Des Moines, informs us that bids will be received, until May 30, for the erection of a 4-story brick fireproof building, with steel floor beams, to cost $50,000; also for a 1,000 electric light plant, with two dynamos, and two engines and two boilers. Arch., C. E. Eastman Co., of Des Moines.

CLEBURNE, TEX.—Bids are asked by the Gulf, Colorado & Santa Fe R. R. Co., until April 20, for the erection of machine, car and boiler shops, boiler house with stack, etc., to be built of brick and iron, at Cleburne. C. F. W. Felt, Ch. Engr., Galveston, Tex.

ALBANY, ORE.—Press reports state that the Waterloo Woolen Mills, owned by Thomas Key, were burned April 9, causing an estimated loss of $50,000; small insurance.

GAS PLANTS.

WAKEFIELD, MASS.—Reports state that the council has authorized an appropriation of $3,000 for improving the gas works.

SPRINGFIELD, MASS.—The Springfield Gas Light Co. has been authorized to extend its mains to Long Meadow to supply the town with gas for heating and lighting, according to reports.

NEW BEDFORD, MASS.—The Riter-Conley Co., Pittsburg, Pa., has been awarded a contract to construct a plant for the New Bedford Gas & Edison Light Co., according to reports.

ATTICA, N. Y.—Reports state that a plant will be erected at this place.

BINGHAMTON, N. Y.—Bids are asked by the council until April 19 for furnishing and maintaining 175 naphtha lamps, etc., as stated in our advertising columns. B. W. Mosher, Cy. Clk.

EAST AURORA, N. Y.—A franchise has been granted to Arthur Richardson to operate a gas plant in this place.

MEDINA, N. Y.—A. L. Sweet, who has the electric lighting franchise here, has asked for permission to lay gas mains and establish a gas plant.

HACKENSACK, N. J.—It is reported that the Hackensack Gas & Electric Co. has been awarded a franchise to extend its mains to Hasbrouck Heights.

ENGLEWOOD, N. J.—The gas mains of the Bergen County Gas Light Co. will probably be extended to Tenafly, according to reports. Samuel F. Gold, Supt.

HOLLIDAYSBURG, PA.—Reports state that the buildings of the Hollidaysburg Gas Co. were destroyed by fire April 2.

WHITWELL, TENN.—John Wilkes, C. E., wishes the address of parties making apparatus for the production of gas for gas engines from coke.

TOLEDO, O.—The Toledo Gas Light & Coke Co., Toledo, has awarded the Carnegie Steel Works, Pittsburg, Pa., a contract for the metal work in the construction of a gas holder of about 1,500,000 cu. ft. capacity, according to reports.

PRINCETON, IND.—R. P. Mead writes us that he has applied for a franchise for a gas plant. If the franchise is granted the contract for constructing the plant will be let at once. Reported cost, $40,000.

KALAMAZOO, MICH.—Reports state that the Kalamazoo Gas & Electric Co. will construct a new plant to manufacture water gas for fuel purposes.

DETROIT, MICH.—Press reports state that John F. Kellogg, Seneca C. Traver and John Harper have applied to the council for a franchise to incorporate the People's Gas Co. to operate gas works in this city.

CHICAGO, ILL.—It is reported that the Ogden Gas Co. is contemplating the construction of a new generator with a capacity of about 1,000,000 cu. ft. a day.

EAST ST. LOUIS, ILL.—Lt.-Gov. John B. O'Meara, Joseph T. Donovan, French R. Sessions, Henry Cornet and John M. Sellers have applied to the council for a franchise to construct and operate gas works, according to reports.

FORT SCOTT, KAN.—Jas. Murdock, Lafayette, Ind., has been examining the gas properties in this vicinity. Nothing definite has been done or is likely to be at the present time.

SANTA MONICA, CAL.—J. A. Jones, Los Angeles, has submitted a proposition to construct a gas plant and lay about five miles of mains in this place, according to reports.

TELEPHONE SYSTEM.—Rockford, Ill.—Surveys are being made for a telephone system to be constructed by the Central Union Telephone Co., between Rockford and La Salle. A. J. Teut, Asst. Supt., Springfield.

DOCK AND WAREHOUSE.—Milwaukee, Wis.—Reports state that the Chicago, Milwaukee & St. Paul Ry. Co. will construct a dock at Walker's Point, with a frontage of about 250 ft. and a warehouse 60 × 200 ft.

MORTAR BATTERY.—Boston, Mass.—Bids are asked until May 12 for constructing a mortar battery on Peddock's Island, Boston Harbor, as stated in our advertising columns. Lieut.-Col. S. M. Mansfield, U. S. Engr., Boston.

STEEL BOAT FENDERS.—Hawaii.—Bids are asked by the Hawaiian Consulate, 65 Wall St., New York, until April 20, for furnishing 100 steel boat fenders, as stated in our advertising columns. E. H. Allen, Hawaiian Consul.

TELEPHONE SYSTEM.—Golden, Colo.—A franchise has been granted to J. D. Babcock by the county commissioners to construct a telegraph and telephone line from Golden to Evergreen. Work will begin at once, according to reports.

DRAINAGE AND ROAD CONSTRUCTION.—Hyde Park, Mass.—Owen Morris, C. E., has been authorized to make surveys and a map of the estate of Fred. W. Vanderbilt, including an area of three square miles, for the purpose of constructing roads, drainage, etc.

CANAL WORK.—Cornwall, Ont.—Bids are asked until April 30 for widening, straightening and deepening the upper entrance to the Cornwall Canal, and the river reaches between Cornwall and Coteau Landing; surety, $17,000. L. K. Jones, Secy. Dept. Rys., Canals, Ottawa.

PATROL BOAT.—Boston, Mass.—The following bids were received by Chief Wade, State Police, Boston, for constructing a patrol boat: Atlantic Works, Boston, $41,430; Arthur D. Story, Essex, $41,700; William McKie, Boston, $41,350; Geo. F. Lawley, Boston, $42,950; John L. Brooks, Boston, $44,976.

DIPPER DREDGE.—Chattanooga, Tenn.—The following bids were received April 2 for a dipper dredge, machinery only: Osgood Dredge Co., Albany, N. Y., $21,800; Bucyrus Co., South Milwaukee, Wis., $14,425; John Featherstone's Sons, Chicago, Ill., machinery only, $15,550; machinery and hull, complete, $26,000.

CONTRACT PRICES.

TRUNK SEWER.—Cincinnati, O.—We are informed that the following bids were received May 29 for constructing a trunk sewer in Bloody Run, from C. C. Bragg's east line, 550 ft. northeast; contract awarded Van Sandt & Meeds; Aug. Herrmann, Pres. Bd. Administration; John D. Harris, Asst. Clk.; H. J. Stanley, Ch. Engr.:

Bids Received at Cincinnati, O., March 29, for Constructing a Trunk Sewer.

Bidder.	Sewers. Brick. 10½ ft., 550 lin. ft.	Sewers. Brick. 3 ft., 10 lin.ft.	Sewers. Pipe. 6 ft., 60 lin.ft.	Sewers. Pipe. 24-in., 24 lin.ft.	Slants. 6-in., 34 each.	Slants. 24-in., 3 each.	Round Rub'le manholes, 2 each.	Ex-cavation. Masonry, 929 c.yds.	Ex-cavation. 15,300 c.yds.	Total.
Geo. Sperry & Co., 2325 Vine St.	$9.65	$3.50	$0.15	$0.95	$0.20	$0.95	$30.00	$3.55	$0.50	$11,432
Henry Frank, 2015 Western Ave.	14.40	3.00	.15	1.00	.15	1.50	35.00	3.45	.35	13,123
Geo. A. Peter,	13.39	3.00	.15	1.10	.15	2.50	.01	2.50	.40	11,885
McCarren & Dawson, 2617 Cleinveem Ave.	12.50	1.90	.06	.75	.20	2.50	46.00	3.00	.30	11,369
Van Sandt & Meeds, 616 West 8th St.	16.00	3.00	.10	1.25	.20	2.50	35.00	1.25	.01	10,165
A. J. Henkel & Bro., 140 Militor St.	13.00	3.00	.20	1.00	.20	2.00	30.00	3.30	.35	12,210
J. W. Sullivan, 3230 Beresford Ave.	14.55	3.00	.30	1.50	.20	4.00	50.00	3.25	.35	13,088
F. H. Kirchner & Co., 8th and Plum	16.00	2.40	.20	2.00	.20	1.50	60.00	2.70	.38	13,538
Hy. Wellmann, 2841 Stanton Ave.	14.00	2.50	.10	1.50	.20	2.00	30.00	3.50	.35	12,946
G. P. Walker, 3712 Sacham Ave.	13.00	2.00	.10	.85	.15	1.80	30.00	2.80	.40	11,988
P. N. Joute, 134 East Court St.	23.65	2.25	.10	1.00	.25	2.00	25.00	.01	.01	13,187
Ruehl & Bros., Hays Ave.	12.00	3.00	.10	.90	.15	3.00	30.00	3.25	.40	11,871
John Moloy & Son, Pueblo St.	14.00	3.00	.12	1.50	.20	3.00	43.00	3.00	.35	13,074

NEW COMPANIES.—Madison Oil & Gas Co., Madison, Kan.; $50,000; F. D. Martindale, A. Weshman, M. L. Brown, W. H. Green, T. J. Robinson, J. F. Sterntorf, A. E. Facht, M. C. Hale and J. W. Frankhouser.

Sunlight Gas Co., Dallas, Tex.; $5,000; James Wathen, J. B. Wathen, J. F. Pierce.

Los Angeles Gas Stock Co., Los Angeles, Cal.; $1,000; Prof. T. S. C. Lowe; to furnish gas.

Weston Development Co., Weston, W. Va.; $50,000, with $25 paid in; to drill for oil, gas, etc.; Andrew Edmiston, J. H. Edwards, J. W. Ross, Jacob Kobblegart, Louis McBride, Weston, W. Va.

Jordan, Elbridge and Skaneatch Heat & Light Co., Jordan, N. Y.; to drill for natural gas and oil; $25,000; W. H. Tappin, T. M. Tole, A. P. Clark, Baldwinsville; G. E. Southard, Clarion, Pa.; Edwin Mitchell, Wayne, Neb.

Alameda County Gas Co., Oakland, Cal.; $500,000; Sidney M. Smith, L. P. Lowe, P. E. Bowles, G. W. McNear, Martin Kellogg, George H. Collins, Charles M. Cook, E. G. Lukens, J. A. Folger and others.

South Marion Natural Gas Co., Marion, Ind.; $5,000; Jas. F. Caddy, James Kuntz, Jr., John W. Dorman.

MISCELLANEOUS CONTRACTS.

LEVEE WORKS.—Dayton, O.—F. M. Turner, Cy. Engr., writes us that $150,000 in bonds will be issued for levee work.

TELEPHONE SYSTEM.—Guthrie Center, Ia.—Reports state that a 20-year franchise has been granted to the Perry Telephone Co.

LEVEE WORK.—Pueblo, Colo.—J. B. Orman, Mayor, writes us that this city will probably let a contract for levee work in September.

CEMENT.—Saginaw, Mich.—Bids are asked until April 15 for furnishing hydraulic and Portland cement during 1898. Alfred Davies, Clk. Bd. Pub. Wks.

CAR FERRYBOAT.—Ann Arbor, Mich.—Bids will be received by the Ann Arbor Car Ferry Co. for the construction of a car ferryboat, according to reports.

TELEPHONE LINE.—Freehold, N. J.—The Monmouth County Mutual Telephone Co. will extend its line from Freehold to Jamesburg, according to reports.

DOCK.—West Point, N. Y.—Bids are asked until April 28 for constructing a dock, as stated in our advertising columns. Capt. J. B. Bellinger, A. Q. M., West Point.

PARK WORK.—Cleveland, O.—Reports state that Spence Bros. have been awarded a contract at $30,624 to construct telford and macadam pavements in Rockefeller Park.

TUNNEL.—Los Angeles, Cal.—The board of public works is considering the question of constructing a tunnel on 3d St., to cost from $75,000 to $100,000. J. H. Dockweiler, Cy. Engr.

TELEPHONE SYSTEM.—Indianapolis, Ind.—Bids are asked until April 18 to construct and operate a telephone system under a franchise, according to reports. M. A. Downing, Chn. Bd. Pub. Wks.

LEVEE WORK.—Greenville, Miss.—It is reported that the Mississippi levee board has authorized an issuance of $75,000 in 6% bonds for strengthening the levees. William Starling, Ch. Engr., Greenville.

FLAGS AND CURBS.—Charleston, S. C.—We are informed that the following bids were received March 12, for furnishing bluestone flag and curb; John Maxwell & Son were awarded the contract; J. B. Keckeley, Supt. Sts.:

Items.	Thos. H. Reynolds, Charleston.	J. Maxwell & Son, Saugerties, N. Y.	F. G. Clarke & Co., Oxford, N. Y.
24-in. flag, a sq. ft.	$0.09	$0.07	$0.10
30-in. "	.09	.07	.10
36-in. "	.10	.09	.11
42-in. "	.10	.09	.11
48-in. "	.12	.12	.13
54-in. "	.12	.12	.13
60-in. "	.13	.13	.16
66-in. "	.13	.13	.16
72-in. "	.15	.13	.19
78-in. "	.15	.13	.19
14-in. curb, a lin. ft.	.24	.21	.25
16-in. "	.24	.25	.30
18-in. "	.29	.30	.35

IMPROVING ALLEY.—Cincinnati, O.—The following bids were received by the board of administration March 31 for improving Rover Alley, from Klein Alley to 300 ft. west; Aug. Herrmann, Pres.; H. J. Stanley, Ch. Engr.:

Quantities.	T. Evans, 1228 14th St.	J. M. Quill, 1032 Pine St.	D. Folz Asp. Pav. Co., 836 Findlay St.	M. T. Flynn, 1252 Chase Ave. (asc'pted).	W. Fogarty, 2550 Burnet Ave.
Broken stone, 20 cu. yds.	$0.01	$0.01	$0.01	$0.01	$0.01
Concrete . . . 60 " "	2.50	2.40	2.30	2.25	2.00
Curbs ..... 20 lin. ft.	.01	.80	.95	.01	1.00
Resetting .. 50 " "	.01	.01	.01	.01	.01
Circular .. 14 " "	.01	1.50	1.35	1.50	1.50
Grading ....150 cu. yds.	.01	.01	.01	.01	.01
Brick .....355 .. sq. yds.	.84	.94	.90	.85	.95
Rebowldering 15 " "	.01	.01	.40	.01	.01
Relay'g flags 50 lin. ft.	.01	.01	.01	.01	.01
Rolling .....355 sq. yds.	.02	.03	.04	.01	.01
Headers ....500 lin. ft.	.40	.14	.25	.14	.30
Total	$682	$607	$658	$543	$673

GARBAGE DISPOSAL.—Buffalo, N. Y.—The following bids were received by R. G. Parsons, Secy. Bd. Pub. Wks., March 23, for the destruction of the garbage a ton a year for five years: Grattan & Jennings, Buffalo, 48 cts. a ton; James E. Whalen, Buffalo, 87 cts.; Wm. H. Kinch, $1.05; Richard Forrestel, Buffalo, 91 cts.; Smead Crematory & Power Co., Toledo, O., 89 cts.; Bayne's Garbage Reduction Co., Buffalo, $1.59; John Martin & Co., Buffalo, $1.63. The commissioners recommended that the contract be awarded to Grattan & Jennings at a total of $79,200 for the entire period of five years. Their bid for each year being $13,920, $14,880, $15,840, $16,800 and $17,760.

SEWERS.—Erie, Pa.—The following contracts were let March 31 for constructing pipe sewers in certain streets: Poplar St.—David Jones, 12-in. sewer, 60 cts. a ft.; branches, 60 cts.; 6-in. pipe, 25 cts.; manholes, $30 each. Plum and Fifth Sts.—John McCormick & Son, straight and curved sewer, $1.38 a ft.; branches, $1.48; 9-in. pipe, 40 cts.; 6-in. pipe, 24 cts.; manholes, $40 each; catchbasins, $38 each.

VIADUCT MASONRY.—Atlanta, Ga.—The following bids were received April 4 for the masonry work of the Mitchell St. viaduct; all local bidders; the bids for the superstructure are given under Bridges:

Bids Received at Atlanta, Ga., April 4, for Masonry Work on the Mitchell St. Viaduct.

Items.	Geo. E. Murphy.	W. H. Summers.	W. W. Griffin.	Gude & Walker.	W. Bensil & Co.	Grant Wilkins.
Masonry for abutments and pedestals, a cu. yd.	$8.00	$7.25	$7.45	$6.54	$9.00	$7.95
Masonry for wing walls, a cu. yd.	8.00	7.25	7.45	6.54	8.75	7.95
Coping for retaining walls, 12 x 18 ins., a lin. ft.	1.75	1.30	1.50	1.12	2.25	1.08
Coping for abutments, 12 x 24 ins., a lin. ft.	2.10	1.30	1.53	1.50	3.00	1.45
Bridge seats, 2¾ ft. x 3½ ft. x 1½ ft., each	18.00	13.15	13.70	14.00	27.00	13.48
Bridge seats, 2¼ ft. x 3½ ft. x 1½ ft., each	12.75	13.15	10.80	14.00	20.00	9.52
Coping for pedestals, 4¼ ft. x 4¼ ft. x 1½ ft., each	27.00	18.85	18.70	20.50	54.00	18.15
Concrete for pedestals, a cu. yd.	4.00	3.78	3.50	3.95	5.25	3.30
Sidewalks and curbing, removed and relaid, a lin. ft.	.2c	.15	.10	.145	.30	.20½
Granite paving, removed and relaid, a sq. yd.	.10	.25	.11	.17	.12	.21
Embankment, a cu. yd.	.20	.30	.15	.30	.15	.33

SUBWAY STATION PLATFORM.—Boston, Mass.—We are informed that the following bids were received by the Boston Rapid Transit Commission April 5 for constructing an additional platform at the Scollay Square Station; Geo. W. Judd was awarded contract:

Quantities.		Shaller & Schniglau Co., Chicago.	Geo. W. Judd, 95 Milk St., Boston.
Earth excavation	3,200 cu. yds.	$3.80	$2.85
Removal st'l posts & beams	18 tons	10.00	2.50
Old masonry	130 cu. yds.	15.00	5.00
6-in. vit. sewer pipe	110 lin. ft.	.75	.50
Iron and steel work*	170 tons	14.00	10.35
Br'k masonry, Port. cem.	40 cu. yds.	17.50	19.50
Concrete mas'ry, Ros. cem	10 " "	8.00	7.00
Portland cement	860 " "	10.50	8.50
Granite footing-stone	2 " "	30.00	35.00
Tiling outside of walls	280 sq. yds.	1.25	1.00
Plastering, Port. cem.	1,920 " "	.40	.50
Waterproof coating	1,920 " "	.35	.35
Total		$28,413	$21,772

*Setting and securing.

PARK IMPROVEMENTS.—New York, N. Y.—The following bids were received by the department of parks April 7 for improvments to the East River Park at 84th St., East End Ave. and the East River; the two sizes of drain pipe are for vitrified stoneware pipe; T. Hugh Boorman submitted the lowest bid:

DREDGING.—Perriwig Bar, Del.—We are informed that Maj. C. W. Raymond, U. S. Engr., received the following bids April 11 for 15,000 cu. yds. of dredging in Perriwig Bar, Del.: Percy H. Wilson, Camden, N. J., 30 cts. a cu. yd., and American Dredging Co., 236 Walnut St., Philadelphia, 35 cts.

PIG LEAD.—Toledo, O.—We are informed that the following bids were received April 4 for furnishing 15 tons of pig lead; T. R. Cook, Supt. Water-Works; all local bidders; the price is for a 100 lbs., f. o. b. Toledo: National Supply Co., $3.69; Warren M. Stone, $3.715; Toledo Supply Co., $3.75; Bostwick Braun Co., $3.70.

PAVING BLOCKS, CURBS, ETC.—New Bedford, Mass.—Chas. F. Lawton, Supt. Pub. Wks., informs us that the following bids were received March 22 for furnishing curbing and paving blocks, as advertised in Engineering News; Robertson & Harvey were awarded the curbing contract; the contract for paving blocks was divided between S. S. Paine & Bro., 50,000, and Moses Denault, 20,000:

Bidder.	Curbing, 30,000 lin. ft.	Pav'g bicks, 100,000	No. blocks to sq. yd.
Robertson & Haney, W. Sullivan, Me.	$0.30	.....	..
Hooper, Haney & Co., N. Sullivan, Me.	.305	$48.00	22
Campbell & Macomber, Mt. Desert, Me.	.31	50.00	21
John P. Gordon, Franklin, Me.	.31¾	.....	..
S. S. Paine & Bro., New Bedford, Mass.	.32	50.00	21
Crabtree & Harvey, N. Sullivan, Me.	.33	.....	..
Fernald Bros., Mt. Desert, Me.	.37	.....	..
Moses, Denault, New Bedford, Mass.	.45	43.00	21
Abiatha Rogers, New Bedford, Mass.	...	50.00	20

The contract calls for the paving of Badger Ave., from Waverly to Clinton Ave., with oblong granite block pavement upon a 6-in. concrete foundation, and the interstices filled with beach gravel and paving mastic; 2,500 ft. long and 42 ft. between curbs.

WATER PIPE.—St. John, N. B.—It is stated that the National Foundry & Pipe Works, Ltd., Scottsdale, Pa., submitted the lowest bid, April 2, for furnishing cast-iron water pipe, at $27.80 a ton, duty paid.

Bids Received at New York, N. Y., April 7, for Improvements to East River Park.

Quantities.		T. Hugh Boorman, 35 Broadway.	Wm. J. Moore, New York city.	P. Costello & Co., New York city.	Kelly & Kelley, St. Paul Bldg., N. Y. city.	W. H. Masterson, 231 E. 86th St.	A. B. Marshall, 81 E. 125th St.	DeWitt C. Bouker, Brooklyn, N. Y.	Patk. J. Kane, New York city.	John Slattery, 368 Park Ave.	C. O'Grady, 1062 Forest Ave.	Christ. Nally Co., 102 W. 81st St.
Excavation	900 cu. yds.	$0.40	$1.00	$1.00	$1.55	$1.00	$1.25	$1.00	$1.30	$1.60	$1.50	$3.20
Mold in place	550 " "	.85	1.50	2.50	2.00	1.85	2.00	1.50	1.50	1.45	1.50	2.50
Rck asp. walks	4,600 sq. ft.	.25	.30	.40	.18	.75	.35	.23	.19	.20	.20	.30
14-in. edging	460 lin. ft.	.80	.80	1.00	.50	.75	.40	.85	1.00	.90	.75	.40
Walk basins	10 each	40.00	35.00	25.00	25.00	33.00	40.00	30.00	35.00	35.00	30.00	15.00
Surface basins	2 "	50.00	40.00	125.00	35.00	40.00	50.00	35.00	40.00	38.00	50.00	30.00
8-in. drain pipe	250 lin. ft.	.50	1.00	1.00	.30	.35	1.50	.60	.55	.70	2.50	1.00
6-in. " "	200 " "	.40	1.00	1.00	.20	.60	1.50	.50	.50	.50	2.25	.75
Sod, fur. & laid	2,500 sq. ft.	.07	.05	.10	.16	.03	.00	.02	.035	.03	.01	.05

RIVER WORK.—Chicago, Ill.—We are informed that the following bids were received April 6 by the board of trustees of the Sanitary District for constructing a tail race and widening and deepening the Desplaines River channel, as advertised in Engineering News; Jas. Reddick, Clk.:

Section 16.

Bidder.	Excavation, 165,000 cu. yds.
Hayes Bros., Janesville, Wis.	$0.39
S. H. Mallory, Charlton, Ia.	.42
J. C. Regan & Co., Chicago, and Joliet, Ill.	.44
Griffiths & McDermott, Chicago, Ill.	.45½
McArthur Bros. Co., Chicago	.47⅝
Lockport Const'n Co., Lockport, Ill.	.49⅛
Gahan & Byrne, Chicago, Ill.	.54
Heldmaier & Neu, Chicago, Ill.	.58½

Section 17.

Bidder.	—Excavation,— Solid rock 489,600 cu. yds.	Earth, 232,900 cu. yds.	Levee const'n, 35,720 cu. yds.	Total.
J. C. Regan & Co.	$0.60	$0.18	$0.30	$346,398
Meldmaier & Neu	.63	.29	.39	389,920
Gahan & Byrne	.69	.255	.27	406,858
S. H. Mallory	.67	.30	.75	424,692
Griffiths & McDermott	.74	.27	.35	437,689
McArthur Bros. Co.	.85	.33	.40	507,305

MACADAM-PAVING.—Paterson, N. J.—We are informed that the following bids were received April 4 for 4-in. macadam paving: Lafayette Ave.—Daniel & Stanley, Little Falls, N. J., 24 cts. a sq. yd.; McKiernan & Bergen, Paterson, 24.5 cts.; and Colfax & Steele, Pompton, N. J., 25 cts. Ramapo Ave.—Colfax & Steele, 23.5 cts.; and Francisco Bros., 24 cts., and 5th Ave.—F. J. Marty, 37 cts.

GRANITE BLOCK PAVING.—Newark, N. J.—Ernest Adam, Engr., St. and Sewer Depts., informs us that the following bids were received April 7 for oblong granite block paving in Badger Ave., and the contract awarded to J. F. Shanley:

GRADING RAILWAY.—Clinton, Mass.—We are informed that the following bids were received April 4 by the Metropolitan Water Board for grading a portion of a railway in this place, as advertised in Engineering News:

	A cu. yd.
Moulton & O'Mahoney, Boston (accepted)	$0.14
Auguste Saucier, So. Framingham	.15
Wason & Libby, Boston	.15⅝
Murphy Bros, Clinton	.15¾
Devine & McBride, Brighton	.15 13-16
Harry D. Bush, Springfield	.1649
John Donovan, Southboro	.16¾
Haynes, Lake & Co., So. Framingham	.17
J. J. Braithwaite, Southville	.17⅝
Cenedella Bros., Milford	.185
Mignault & McGrain, So. Framingham	.19
Newell & Snowling Cons. Co., Uxbridge	.19
Long & Little, Leominster	.19⅞
Lucian A. Taylor, Worcester	.20
Jake Berry, Fayville	.20⅝
W. E. Chapman & A. C. Smith, Oakdale	.22
David Hall, Littleton	.27
Welsch & Young, Salem	.29 2-50

TRUNK SEWER.—Cincinnati, O.—Geo. Sperry & Co., 2325 Vine St., has been awarded the contract for constructing 550 ft. of 16-in. iron pipe sewer in Kemper Lane at $7.10 a ft., and three round manholes at $149 each; total, $4,352. Aug. Herrmann, Pres. Bd. Administration.

CABLES AND WIRE.—Washington, D. C.—The following bids were received April 4 by Gen. A. W. Greeley, Ch. Signal Officer, U. S. A., for furnishing cables and wire: Standard Underground Cable Co., Pittsburg, single wire aerial, 1¾ cts. a ft.; two pair aerial, 5.87 cts.; two pair aerial, 8.6 cts.; three wire aerial, 4.9 cts. a ft. Underground lead covered two pair, 8.5 cts. a ft.; three pair, 12.4 cts. a ft.; three wire, 7.5 cts. Inside wire, single, 7.5 cts. a ft.; one pair, 1¾ cts. a ft.. Okonite Co., Ltd., New York, aerial insulated wire, $95 a mile; first five miles seven days and ten miles each day following; one twisted pair, $165 a mile; first five miles seven days and five miles daily thereafter; two twisted pair, $497 a mile; first five miles seven days following and five every three days following; three twisted wire, $679 a mile; 14 days after receipt of order and five miles every day thereafter; three conductors, $388; five miles every day thereafter; cables, two twist pair lead covered, $808; underground twist pair lead covered, $808; inside single wire, $40; one twist pair, $85. John A. Roebling Sons Co., New York, No. 9 B. W. G. galvanized iron, 4¼ cts. a lb.; No. 9 B. B. gal., 2⅞ cts. a lb.; No. 12 B. B. hard drawn copper, 15¼ cts.; 3-ply strand, $2 a 1,000 ft.; 4-ply, $2.50 a 1,000 ft. Washburn & Moen Mfg. Co., Philadelphia, Pa., No. 9 B. W. G., 4¼ cts. a lb.; No. 12 B. & S. copper, 14¼ cts.; No. 18 galvanized, 13 cts. a lb.; cable, 21½ cts. a lb. Safety Insulated Wire & Cable Co., New York, aerial insulated single wire, $85 a mile; one twist pair, $144.50; two twist pair, $315.50; three twist pair, $475.20; three conductor, $237.50; underground lead covered two twist peir, $527; three twist pair, $801; three conductor, $376.50; inside wire, single wire, $79.20; one twist pair, $79.20; naked wire iron, $8.13; copper, $15.12; stranded wire, 3-ply, $12.50; 7-ply, $18.

Bids Received at Newark, N. J., April 7, for Granite Block Paving.

Quantities.		F. R. Pratt.	F. B. Allen.	David Harper.	N. Paving Co.	Andrew Harper.	William Hanna.	J. F. Shanley.
Oblong granite block paving	11,500 sq. yds.	$2.32	$2.69	$2.97	$2.43	$2.45	$2.55	$2.18
Bridging	2,000 ft.	.48	.35	.50	.50	.40	.60	.47
New 20-in. curb	1,200 "	.55	.45	.45	.45	.43	.55	.58
Old 20-in. curb	3,500 "	.21	.20	.20	.18	.18	.32	.18
Corners	3 each	6.00	7.50	7.00	6.00	5.50	8.50	7.00
Basin	1	100.00	95.00	100.00	85.00	90.00	100.00	85.00
Total		$29,153	$32,993	$36,521	$30,218	$30,238	$32,416	$27,442

INDUSTRIAL NOTES.

W. H. TOLHURST & SON, Troy, N. Y., are reported as having orders for machine work in connection with 10-in. guns for the Navy Department, which will require the operation of their machine shop night and day for at least six weeks.

THE WESTINGHOUSE ELECTRIC & MFG. CO. has opened a branch office at Austin, Tex. Mr. J. E. Johnson will have charge of the office and of the further extension of the Westinghouse business in the southwest. The large contracts which this company has been handling in Mexico and Texas has led to the establishment of this new office.

WATER-WORKS.

HALLOWELL, ME.

Bids are asked for the following work to be done in Hallowell, Kennebec County, Maine. Work to be begun, on demand after May 15 next, at the discretion of the Water Commissioners.

1. To lay about 18,000 feet of 6-inch water pipe.
2. To lay about 6,000 feet 8-inch water pipe.
3. To lay about 1,500 feet 12-inch water pipe.
4. To set gates.
5. To set hydrants.
6. To excavate rock.

Pipe, gates, hydrants, jute and lead to be delivered contractor f. o. b. wharf or cars at Hallowell.

Cover to top of pipes in streets to be not less than five feet, in fields and grass land not less than three feet.

Right to reject any and all bids reserved.

All bids to be sealed and addressed "Hallowell Water Commissioners," Hallowell, Maine, and to be received before 8 o'clock p. m., April 30, '98. Specifications and further information furnished on request.

FRED EMERY BEANE,
Clerk Hallowell Water Commissioners.
15-1t

BRICK PAVING.

LEECHBURG, PA.

The Borough of Leechburg, Pa., desires proposals for about 5,500 sq. yds. of vitrified brick paving on Main St., in said Borough, together with the necessary grading. Also for 3,000 lin. ft. of curbing. Bids received until Tuesday, April 26th, 1898, at 7 p. m. Borough reserves right to reject any or all bids. Specifications from

S. J. McMAINS,
Secretary of Councils, Leechburg, Pa.,
or WILSON & SMITH, Engineers.
Saltsburg, Pa. 15-2t

ASPHALT PAVING.

DEPARTMENT OF WORKS,
OSWEGO, N. Y., April 12, 1898.

Sealed proposals will be received by the Department of Works and publicly opened at 2 o'clock p. m., Thursday, April 21st, 1898, for the construction of Trinidad Pitch Lake, Bermudez or Sicilian and German Rock Asphalt pavements in various streets of this city. Estimated area, 34,053 yards. All the above according to specifications on file in the office of the City Engineer, copies of which will be furnished on application.

The right is reserved to reject any and all bids.

By order of the Department of Works,
15-1t E. A. COOKE, Clerk.

PROPOSALS FOR THE CONSTRUCTION OF SEWERS.—Office of the Commissioners of the District of Columbia, Washington, D. C., April 7, 1898.—Sealed proposals will be received at this office until 12 o'clock M., April 30, 1898, for constructing sewers in the District of Columbia. Specifications and blank forms of proposals may be obtained at this office. JOHN W. ROSS, JOHN B. WIGHT, WM. M. BLACK, Commissioners, D. C. 15-1t

U. S. ENGINEER OFFICE, Charleston, S. C., March 31, 1898.—Sealed proposals for DOCKING and REPAIRING U. S. DREDGE "Charleston" will be received here until 12 m., April 30, 1898, and then publicly opened. Information furnished on application. E. H. RUFFNER, Maj., Engrs. 14-3t

Nearly Every Prominent Contractor and Manufacturer of Contractors' Supplies READS ENGINEERING NEWS

AVAIL YOURSELF OF THIS PAPER WHEN BIDS ARE WANTED FOR CONSTRUCTION OR FOR FURNISHING SUPPLIES.